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PORTICI

PORTRAIT OF A MIDDLING PLANTATION IN PIEDMONT VIRGINIA

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MANASSAS NATIONAL BATTLEFIELD PARK
1990

PORTICI

PORTRAIT OF A MIDDLING PLANTATION IN PIEDMONT VIRGINIA

By

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and

Jacqueline L. Hernigle

With contributions by
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Report submitted to the National Park Service, National Capital Region, under the auspices of the Cooperative Agreement between the National Capital Region and the Department of Anthropology, University of Maryland at College Park.

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CONTENTS

List of Figures i
List of Tables v
Acknowledgements vi
Abstract vii

1 Introduction 1

PART I HISTORY, ARCHEOLOGY, AND ARCHITECTURE

2 The Historic Content 7
3 The Archeological Methodology 29
4 The Architecture 44

PART II ANALYZING THE MATERIAL CULTURE

5 The Analytical Methodology 63
6 Ceramics 66
7 Tobacco and Tobacco Pipes 107
8 Glass 120
9 Nails 142
10 Metals 153
11 Dietary Remains 175
12 Buttons 191
13 Personal Possessions 207
14 Slavery and Colonoware 225
15 American Civil War Militaria 235
16 Virginia Piedmont Prehistory 247

PART III CONCLUSIONS

17 In Conclusion 265
18 National Register Eligibility 269

APPENDICES

A. Personal Property Tax Records 1799 through 1861 265
B. Confederate Forces at Portici 279
C. Archival Methodology 307
D. Criteria for Nomination to the National Register of Historic Places 311
E. Sites 44PW336 and 44PW339 319
F. Surface Distribution Maps, Site 44PW348 327
G. Surface Distribution Maps, Site 44PW335 335
H. Soil Description and Stratigraphic Profiles of Unit 1 and Unit 7, Site 44PW348 343
I. Soil Description and stratigraphic Profiles of Unit 137, Site 44PW335 349

J. Explanation and Examples of Mean Date calculations 357
K. Inventory and Appraisement of the Estate of Alfred Ball 361
L. Account of Property Sales from the Estate of Alfred Ball 369
M. Distribution of Slaves from the Estate of Alfred Ball 379

References Cited 383

LIST OF FIGURES

1 Manassas National Battlefield Park 2

2 Robert "King" Carter 8

3 Robert "Councillor" Carter and Frances Anne Tasker Carter 13

4 Portici mansion house 17

5 Alfred Ball 18

6 Fannie and Frank Lewis 19

7 Gen. Joseph E. Johnston 21

8 Capt. James B. Ricketts and Fanny Ricketts 23

9 Portici III, the Lewis house 27

10 Rosa Belle Lewis and Robert Lee Lewis 27

11 Detail of circa 1861 Confederate Map 30

12 West stratigraphic profile of Unit 1, Portici 33

13 West stratigraphic profile of Unit 7, Portici 33

14 Exposed foundation of Portici mansion house 34

15 Archeological plan of Pohoke 35

16 Chimney footing of Structure 1, Pohoke 36

17 Potici's detached kitchen and enclosed walkway 37

18 Archeological plan of Portici 39

19 Archeological plan of bulkhead entrance and cellar slave quarters 41

20 Aerial view of archeological excavation at Portici 41

21 North stratigraphic profile of Unit 137, Pohoke 42

22 Pear Valley, Northampton County, Virginia 46

23 East elevation of Pear Valley 46

24 Portici mansion house 50
25 Aerial view of Portici archeological excavation 52
26 Cellar slave quarters hearth 53
27 Bulkhead entrance 54
28 Construction sequence of Portici 55
29 Surface artifact distribution maps, Portici 56
30 Hierarchical patterning of Potici plantation 59
31 Ceramic flatware rim patterns 74
32 Ceramic vessel forms 85
33 Chinese and Japanese porcelains 93
34 Ceramics associated with cellar slave quarters 99
35 White clay and North American-made clay tobacco pipes 116
36 Assorted clay tobacco pipes 116
37 Broad glass manufacture 125
38 Crown glass manufacture 126
39 Glassware types 130
40 Hall lantern and fluid-burning lamp 134
41 Crackle glass 135
42 Melted window glass 138
43 Autographed window glass fragment 138
44 Sandwich glass cup plate fragment 139
45 Hand-wrought nail manufacture 143
46 Machine-cut nail manufacture 145
47 Wire nails 146

48 Carpenter-type door lock 159
49 Furniture hardware associated with Structure 1 160
50 Hot punches 162
51 Mortise chisel 163
52 Drawknife 164
53 Scythe handle tangs 165
54 Reworked horseshoe caulkin 166
55 Furniture hardware associated with Portici 168
56 Archeological recovery of Portici's Franklin-type stove 170
57 Detail of Franklin-type stove door 170
58 Cutlery from Portici 172
59 Kitchen utensils from Portici 172
60 Meat cuts consumed by occupants of Structure 1 178
61 Meat cuts consumed by domestic slaves 184
62 Meat cuts consumed during military occupation 187
63 Domestic slave dietary assemblage 189
64 Structure 1 dietary assemblage 190
65 Button-types 199
66 Mississippi militia coat button 200
67 Assorted buttons from Structure 1 202
68 Ceramic and bone gaming pieces 208
69 Iron Jew's harp frames 210
70 Sewing kit 214
71 Paste gem and glass beads from Structure 1 218

72 Ebony and horn finger rings from Portici 219

73 Horn finger ring from Monticello 219

74 Tree of Life medallion 220

75 Carved large cent 222

76 Assorted coins 222

77 African sources for the Atlantic Slave trade 226

78 Phase I Colonoware vessels from Pohoke 231

79 Phase II Colonoware vessels from Pohoke and Portici 233

80 Phase III Colonoware vessels from Portici 234

81 Percussion caps and firearm ammunition 237

82 Assorted firearm projectiles 244

83 Military buttons 244

84 Prehistoric lithic tools 249

85 Projectile points recovered from Pohoke 259

86 Projectile points recovered from Portici 260

87 Sites eligible for nomination to the Nation Register 270

LIST OF TABLES

5.1 General division of artifact classes 65

6.1 Ceramic flow chart, Pohoke 87
6.2 Ceramics associated with Structure 1 88
6.3 Ceramic form and decoration, Structure 1 89
6.4 Ceramics associated with Structure 2 92
6.5 Ceramic form and decoration, Structure 2 95
6.6 Ceramic flow chart, Portici 97
6.7 Ceramics associated with Portici domestic slaves 98
6.8 Ceramic form and decoration, domestic slave 100
6.9 Ceramics associated with planter/military occupation 103
6.10 Ceramic form and decoration, planter/military occupation 104

8.1 Glass flow chart, site 44PW335 131
8.2 Glass flow chart, site 44PW348 136

9.1 Nail flow chart, Pohoke 148
9.2 Nail flow chart, Portici 150
9.3 Mean nail dates for Portici 151

11.1 Dietary analysis, Pohoke 177
11.2 Comparative livestock data 179
11.3 Domestic slave dietary analysis, Portici 182
11.4 Military occupation dietary analysis, Portici 186

12.1 Pohoke buttons 201
12.2 Portici buttons 205

15.1 Militaria from Pohoke and Portici 243

16.1 Prehistoric timeline 247
15.2 Prehistoric lithics from Pohoke and Portici 257

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ABSTRACT

Manassas National Battlefield Park's General Management Plan (1983) named the Wheeler Tract as the site for the relocation of the picnic area and its attendant facilities. The area chosen for this relocation had been previously identified as the site of the late eighteenth- to early nineteenth-century plantation complex known as "Portici." An archeological study of the proposed relocation area was required pursuant to planning and development.

The historical and archeological exploration and identification of Portici was critical to determining the plantation's potential status as a possible site on Manassas National Battlefield Park's nomination to the National Register of Historic Places. Historic cultural and military information regarding this plantation will prove valuable when establishing guidelines concerning the preservation and management of the site area particularly regarding agriculture, construction projects, and vandalism. The resulting data should also serve to update the park's interpretive programs.

Nineteenth-century Portici plantation evolved from a small tenant-occupied farmstead established during the early eighteenth century. This tenant farm grew into a middling tobacco plantation called "Pohoke." Later the eighteenth-century dwelling was abandoned when Portici mansion house was constructed in circa 1820. Portici plantation became a flourishing, middling, multiple-grain-plantation complex. Reaching its apex by mid-century, it was quickly reduced to a small, grain-based plantation by the eve of the American Civil War. Gen. Joseph E. Johnston, commander of the Armies of the Shenandoah and the Potomac, established his headquarters in Portici's main house during the First Battle of Manassas on July 21, 1861. The abandoned plantation house served as a Confederate field hospital following this first major land engagement of the Civil War. After two years of sporadic military occupation and neglect, Portici burned in 1863. A modest farm house on another location replaced the antebellum plantation during the 1870s. This farm house, Portici II, also burned and Portici III, also known as the Lewis house, rose from the ruins of its predecessor. The extant Lewis house culminates the 226-year agricultural life-cycle of a single Virginia family.

Archeological and archival work was conducted to document and assess the eligibility of Pohoke, Portici, and the Lewis house for nomination to the National Register of Historic Places. Collectively these three sites, with all their ancillary sites on the Wheeler tract, graphically depict the evolution of local lifeways and patterns of development in a frontier Piedmont plantation.

1 INTRODUCTION

Manassas National Battlefield Park is located approximately 25 miles southwest of Washington, D.C. in Prince William and Fairfax Counties, Virginia (Figure 1). The park was designated as a National Historic Site by the Secretary of the Interior on May 10, 1940. This act served to preserve the sites of the First and Second Battles of Manassas. Subsequent congressional legislation in 1954, 1980, 1985, and 1988 established the present park boundaries in order to "preserve the most important historical lands relating to the two battles of Manassas." The First Battle of Manassas was the first major land battle of the Civil War. The Second Battle ultimately moved the theater of war from Virginia to Maryland.

Manassas National Battlefield Park is listed in the National Register of Historic Places. There are many historic sites and structures within the 4,355-acre park. The park considers the historic battlefield scene to be its most important resource (United States Department of the Interior/National Park Service 1983:9). While these sites and structures contribute significantly to this specific purpose, many are significant and eligible for nomination to the National Register of Historic Places on their own merit.

Preserving the scene of two landmark battles also preserved a Piedmont Virginia community. Commonly, only the combative and tactical aspects, or the generalized, far-reaching effects of the Civil War are addressed. Manassas National Battlefield Park is a unique resource. It provides an exceedingly rare opportunity to examine the growth and development of a frontier population and that population's ability to survive civil war.

The processes of settlement, along with the immediate effects and the aftermath of the war on this resident population, are vital links in the chain of events which forged Piedmont Virginia. They are also essential elements in any comprehensive analysis of war. By studying those who fought the battles along with those who owned the lands transformed into the battlefields, perspectives are maintained. War is a transient event. The people engaged in the war, whether actively fighting or drawn into the carnage through their land holdings, represent the continuity of society. The two battles of Manassas lasted a total of four days. The peopling of Piedmont Virginia, which provides the context for these battles, has been in progress for almost 12,000 years.

Native American peoples first occupied the Virginia Piedmont between 10,000 B.C. and 8,000 B.C. They were a migratory people whose economy was based on hunting, trapping, and harvesting wild plants. The first permanent settlements

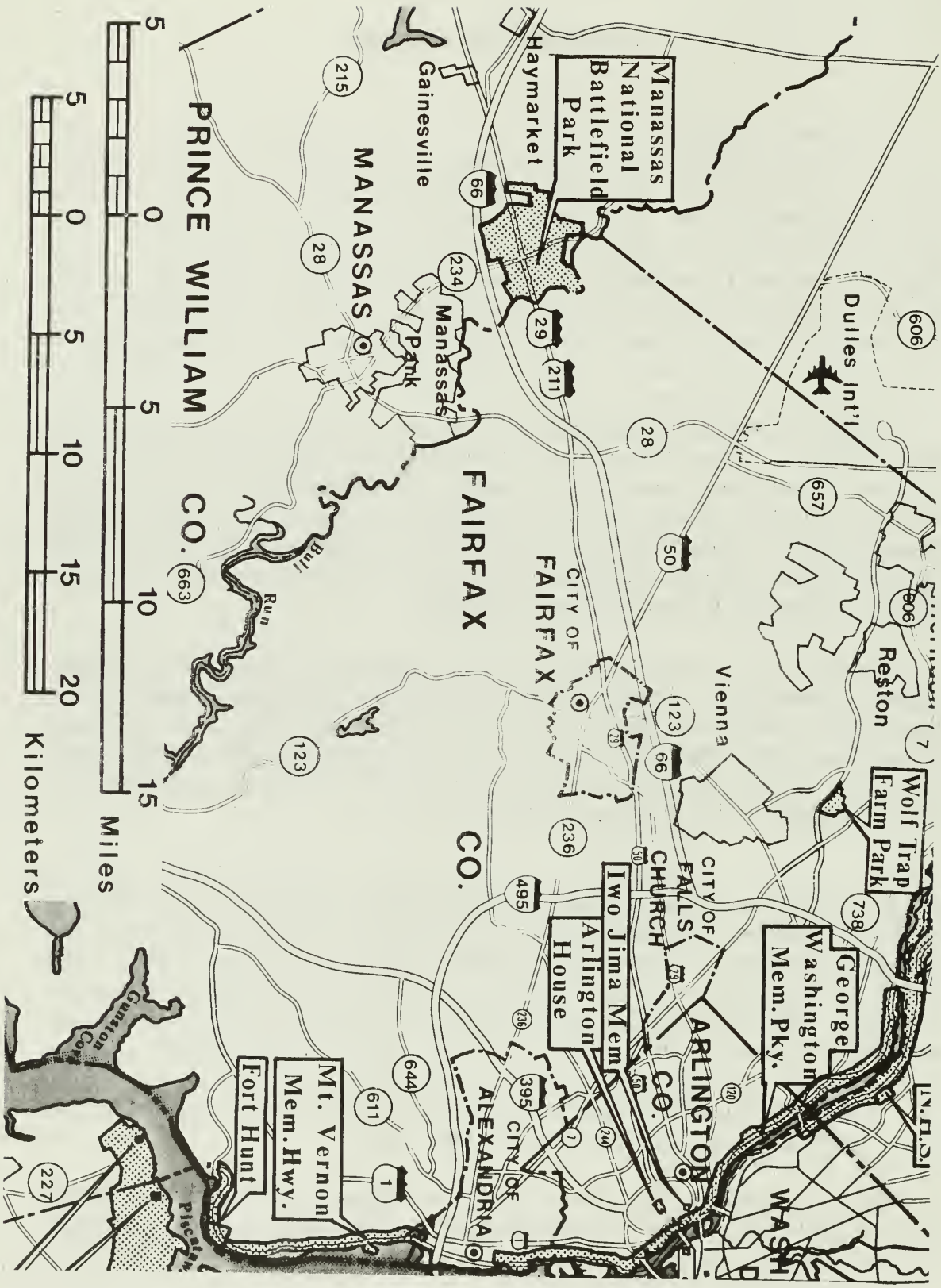


Figure 1 Manassas National Battlefield Park, Prince William County, Virginia.

did not appear until approximately A.D. 700 to A.D. 900 when agriculture slowly began to develop (Opperman et. al. 1987). Aboriginal settlements and culture were disrupted and eventually destroyed by the European invasion of Virginia in the seventeenth century.

Approximately 23% of the battlefield has been systematically surveyed to locate archeological sites. Predictive models, based on work in Fairfax County, Virginia concerning the number and distribution of prehistoric sites in the Piedmont, suggest the presence of at least 218 aboriginal sites within the park boundaries (Michael Johnson 1987:personal communication). Fifty-one prehistoric sites have been located to date.

The historic settlement of Piedmont Virginia began in the early eighteenth century. Several middling plantations and large farmsteads were carved from this western frontier. The tobacco-turned-multiple grain plantations of the Northern Virginia Piedmont were generally on a smaller scale than the Tidewater and Southern Coastal plantations. These Piedmont plantations each generally encompass approximately 1,000 acres. The current park boundary includes portions of the plantations known as "Brownsville" / "Folly Castle" (George Brown / Bernard Hooe / William Lewis), "Pittsylvania" (Landon Carter), "Rosefield" (Wormely Carter), "Pohoke" and "Portici" (Spencer and Betty Landon Carter Ball), "Spring Hill" (Isaac and Judith Carter Henry), "Hazel Plain" (Bernard Hooe / Benjamin Chinn) and "Peach Grove" (William and Lucinda Dogan). These plantations evolved from three tracts of land patented by Robert "King" Carter and known as the Upper, Middle, and Lower Bull Run Tracts. Many of these plantations were built by descendents of King Carter. These eighteenth- and nineteenth-century plantation complexes were home to both the wealthy white planters and their African-American slaves.

The free black residents of the nineteenth-century Piedmont community which evolved here are represented by the Robinson House, the Mahala Dean House, and the Maggie Lewis Cabin. White middling farmers resided at "Avon" (Abraham Van Pelt), "Christian Hill" (Amos Benson), "Meadowville" (John Cundiff), and the Matthews House. White tenancy is represented by the Brawner family at "Bachelor's Hall."

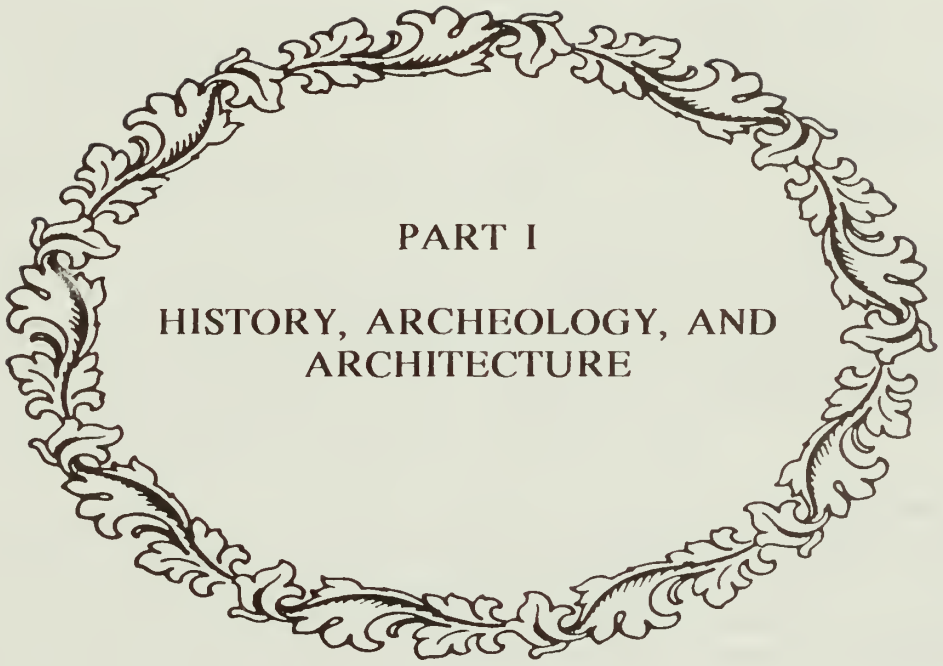
Nineteenth-century transportation, commerce, and education are represented by the Stone Bridge; Stone House; Sudley Post Office; the Alexandria-Warrenton Turnpike; Ball's, Lewis, Poplar and Sudley Fords; Groveton School House; and the village of Groveton. In addition to the role these structures and sites played during and after the battles, other vestiges are seen in Confederate encampments,

rifle-pits, the unfinished railroad, gun emplacements and graveyards. The complete spectrum of eighteenth- and nineteenth-century society during peace and war is embodied in this "Battlefield Community."

The plantation complexes of Pohoke and Portici were acquired when Manassas National Battlefield Park received title to the Wheeler Tract in October, 1985. A General Management Plan was subsequently developed for the park which named the Wheeler Tract as the site for the relocation of the picnic grove and its attendant facilities. The area slated for this relocation had been previously identified as the site of the nineteenth-century plantation complex of Portici. An archeological evaluation was necessary prior to any further planning or development.

James Madison University conducted a two-day archeological survey of the Wheeler Tract in May 1985 (Cromwell and McGiver 1985). The survey located 16 historic and prehistoric sites. At least four of these sites were tentatively identified as Portici. The four sites are located along two upland ridges and were within the proposed picnic area boundaries. Additional archeological work was essential to this survey as it was executed before the property had been legally acquired by the National Park Service.

The requisite archival and archeological work was accomplished through a cooperative agreement between the University of Maryland, College Park, and the National Park Service, National Capital Region. The project archeologist and assistant archeologist were hired through this cooperative agreement. Ninety-two volunteers, recruited through the Regional Archeology Program, assisted with all phases of this project.



PART I

HISTORY, ARCHEOLOGY, AND ARCHITECTURE

2 THE HISTORIC CONTEXT

To understand and appreciate the significance of Portici, the history, sociology, and landscape which created this Piedmont plantation, needs to be considered. Archeology provides a detailed glimpse of the material culture. The archeological record alone, however, does not tell the complete story of this plantation, or any site. Historic and social context are critical to a comprehensive understanding and interpretation of the archeology.

The first half of the eighteenth century witnessed the transformation of Virginia and its inhabitants. The land-holding immigrants of the seventeenth century evolved into the "Old Dominion's" native-born eighteenth-century plantation aristocracy. The members of this small, economically successful group were primarily merchant-planters. These individuals capitalized on their investments by gaining control of both the land and the labor.

Virginia society in the eighteenth century was built upon the economic structure of tobacco. Large amounts of land and a plentiful supply of slave labor to work it were the driving forces. There was an occasional flux in this system when the price of tobacco changed or the soil became unworkable. Virginia's aristocracy was built primarily upon three things --land, slave labor, and tobacco. This held true until the Revolutionary War.

Through the cultivation of tobacco the planters systematically exploited thousands of square miles of land. Rather than fertilizing the land or rotating crops they merely rotated fields. Tobacco was planted until the soil was depleted afterwhich they moved on to the next tract of land and repeated the process. Tobacco could be planted for three successive years. The field would then have to lie fallow for 20 years before it was again productive (Kulikoff 1986:47).

The Georgian ideology espoused by this new aristocracy focused on a structured, ordered, symmetrical universe. Material culture was both viewed differently and put to different use. The medieval, communal focus of the seventeenth century settlers was replaced by one exalting the individual and his place within the material world during this "Age of Reason" (Deetz 1977:40, 111).

Robert King Carter (Figure 2) personified this new society and century. Astute, and quick to take advantage of every opportunity, the King carved a 333,000-acre empire from the lush Virginia frontier. He combined the 1,000 acres of land inherited from his immigrant father, John Carter, with his shrewd business

skills and soon controlled a substantial portion of the colony (Morton 1941:9). His realm encompassed Virginia's Northern Neck and swept on to the Piedmont. Carter's position as the appointed agent of the Proprietors of the Northern Neck served him well in the capacity of land acquisition. It placed him in the position to grant land not only to himself but to his children and grandchildren.

Figure 2 Robert "King" Carter, established a 333,000-acre empire in Virginia (Kelso 1984:Figure 7; original in collection of the National Portrait Gallery, Smithsonian Institution, Washington, D.C.).

The Northern Neck Proprietary originally consisted of 5,282,000 acres of land granted by the exiled King Charles II to seven of his loyal followers. This grant was issued in 1649 in recognition of their services to Charles' recently beheaded father. The loyalist's claims were subsequently suspended by the Long Parliament. When Charles was restored to the throne, the grant was renewed and all of Virginia's territory was granted to Lords Culpeper and Arlington in 1672. This second grant conflicted with the earlier one and considerable confusion developed. By 1688 the issue was resolved and Lord Culpeper became the sole Proprietor for the region. Upon his death, the proprietary of the Virginia territory passed to Thomas, Fifth Lord of Fairfax and his wife, Catherine. In 1719, their son Thomas the Sixth Lord of Fairfax became the Lord Proprietor.

The Proprietors appointed a series of men to serve as agents from 1670 to 1786 (Mitchell 1977:4). These men looked after the Proprietors' interests in the Northern Neck, insuring profitable land sales and collection of their quit-rents (rent paid by free-holders in lieu of services which might have otherwise been required of them). King Carter served as the appointed agent from 1703 to 1712 and, again, from 1722 to 1728 (Morton 1941:19-20).

From 1690 through 1786 the procedure for granting land began with the purchase of a warrant. The warrant specified the exact location of the land. A surveyor was engaged to survey the specified land and returned a plat to the Proprietor's agent. If no discrepancies were found and there were no conflicting claims, the agent issued a grant. The new owners were required to pay two shillings per year quit-rent for each 100 acres (Freeman 1948:7). In this manner, Robert King Carter managed to take out grants totaling 89,937 acres by the end of 1724 (Morton 1941:7).

Carter's actions were not purely selfish in nature. He wanted to insure his descendants would be provided with the land necessary to support the exploitive nature of the agricultural system. By so doing, Carter also insured a place of epic importance in the history of Virginia for his family.

One of the grants King Carter patented to his son Robert Carter II in 1724, was a 6,030 acre tract of land on the Piedmont frontier. This land was known as the Lower Bull Run Tract (Dumfries District Court Land Cause Book 1805-1816:290-292). The two tenants, John Russell and Samuel Rust, who were leasing 700 acres of this land from Fairfax, were also acquired with the patent. It was from this tract of land, and apparently this pre-leased acreage, that Portici plantation developed.

Very little is known about the second son of King Carter. Robert was educated in England along with his three brothers. Upon his return to the Colonies, he resided at his father's home "Corotoman" and was appointed naval officer of the Rappahannock River and Receiver of Virginia Duties in that district (Executive Journals of the Council of Colonial Virginia IV:128). In 1728, Robert married Priscilla Churchill. The young couple settled on a plantation in Lancaster County on Nomini Creek and were blessed with two children, Elizabeth and Robert III. Robert Carter II died suddenly in 1732, preceding his father to the grave by several months. His widow soon remarried John Lewis of "Warner Hall."

Robert Carter III, known as "Councillor" Carter, inherited approximately 40,000 acres from his father, which included the Lower Bull Run Tract, and 30,000 acres from his grandfather King Carter. This property was held in trust for him by his three uncles, John, Charles, and Landon Carter. They employed overseers and land agents to operate Robert's estate (Morton 1941:124). Upon his majority, Councillor Carter was in possession of 70,000 acres of land and over 100 slaves. For two years following his inheritance, the "Councillor" resided in London, leaving the management of his estate in the hands of his stepfather John Lewis (Morton 1941:126). He returned in 1751, one of the wealthiest men in the Colonies. Carter now took a vested interest in managing his plantations and grew into a very capable business man. The Virginians of the second half of the eighteenth century were generally not the architects but the managers of their family fortunes. They were also in possession of extremely large estates.

The management of these large estates was a complicated affair. There were two popular and profitable methods commonly used to manage these vast amounts of land. One was to establish small plantations as operating units, usually averaging about 1,000 acres in size. These plantations were used to produce a staple money crop, usually tobacco. Carter oversaw the operation of 16 such plantations. The second method was to divide the land into tracts which could be rented for either long or short periods of time without conveying title. The larger part of the Councillor's vast estate was in tenancy (Morton 1941: 80-81).

Carter's acreage was divided into tracts and leased for varying periods, often for several lifetimes. At least 63% of the Lower Bull Run Tract was divided into lots averaging 180 acres each (Prince William County Deed Book Q:447). The terms of these leases which were granted between 1755 and 1785 were exacting. Carter required that within three years the tenant would build :

> ...a Good dwelling house twenty feet by sixteen and a house thirty two feet by twenty feet as good as the Common Tobacco houses and plant fifty apple trees and fifty peach trees and the same enclose with a lawful fence ... and from time to time sufficiently maintain and keep all in good repair and at the end of the Term will so yield up and leave the same to the said Carter his heirs and assigns....

If the lot leased was less than 200 acres the tenant was allowed to keep "no more than four laboring hands." When more than 200 acres were involved, eight laboring hands were permitted (Prince William County Deed Books Q:440-449, R:189-190, W:268-271; Dumfries District Court Land Cause Book 1805-1816: 292-294). Laboring hands were defined as " Such hands as are generally allowed in Virginia to be full sharers in a Crop and reckoning so many weaker hands for a sharer or a Laboring hand as a Reasonable overseer" (Prince William County Deed Book Q:449).

Although the Councillor was a wealthy landlord, he was, in fact, a tenant himself. The Northern Neck was under the proprietary of the Fairfax family until 1784 when the proprietary system was abolished in Virginia (Hening 1823:226, 359). Until that time, however, Carter paid an annual quitrent on 63,093 acres of Northern Neck land.

During the mid-eighteenth century the Coucillor's operating plantations were located in the counties closest to Chesapeake Bay. Managed by overseers, tobacco and corn were produced almost exclusively. Carter was greatly concerned with the rapidly deteriorating condition of the soil and producing a staple cash crop. Consequently, the fresher tracts in the Piedmont were utilized more and more. Thus by the 1790s, almost all of Carter's tobacco came from the Piedmont.

Carter maintained a total of sixteen operating plantations. The average size of each plantation was approximately 1,000 acres. Each had an average of 23 slaves and 15 dependencies. Nomini Hall, the oldest of the plantations and the Councillor's residence, had 100 slaves and 32 dependencies (Morton 1941:83). Carter also managed interests in the Baltimore Iron Works, textile manufacturing, grain mills, bakeries, and salt production. While much of the materials produced in these various operations were used to supply the plantations, a large amount was also destined for the local market and commercial profit.

In addition to tobacco and commercial industry, Councillor Carter lived as other gentlemen of his class were expected to live, finding time to cultivate other interests including religion, science, music, philosophy, and a family. He married Frances Anne Tasker of Baltimore in 1754 (Figure 3). Thirteen daughters and four sons were born to them over the next 27 years. Ten of these 17 children lived to maturity.

As the eighteenth century drew to a close, unpatented-land was increasingly scarce and the price greatly inflated. Inheritance and the system of provisional gifts became extremely important to the next generation of Virginia planters. Children usually lived on and/or managed parcels of land their parents or grandparents had acquired while it was still inexpensive. They did not procure title to that land, however, until the death of their parents. This trend instilled an interest in the successful management of a pending inheritance. It also increased the power of the landowner over his children (Kulikoff 1986:76-77). Councillor Carter distributed his vast estates to his heirs as did most men of his social class. Carter was in his dotage by the 1790s and the management of his extensive holdings proved increasingly wearisome. After his wife's death in 1787, Robert Carter began turning more and more of the management of his agricultural and commercial interests over to his children. He planned for the gradual manumission of his 500 slaves and retired to Baltimore, Maryland, in 1793. Here he was able to closely supervise the numerous commercial investments centered in Baltimore as well as socialize with his late wife's relatives. The Councillor also arranged for the distribution of his estates at this time. To accomplish this, Carter divided his landed and commercial interests into ten approximately equal lots. In 1798, each of his ten surviving children chose their respective share. A nominal yearly rent was paid by each child who was now a tenant of their father. Carter's heirs did not come into full legal possession of their respective properties until the Councillor's death in 1804 (Baltimore City Will Role G, Will Book B:7).

George Carter, the only surviving son of the Councillor, received three tracts of land. These parcels included 3,400 acres in Loudoun County which became his residence "Oatlands" Plantation, 1,000 acres in Prince William County, and 330 acres in Fairfax County. The yearly rent he collected on this acreage was $100 (Prince William County Land Cause Book 1 B5-16:423-426). In May of 1799, George's sister, Elizabeth Landon Carter, and her husband, Spencer Ball, arrived to live in the Prince William County tract of land which was to become Portici (Dumfries District Court Land Cause Book 1805-1816:2 ; Prince William Personal Property Tax Records 1799; Ball Family Bible).

Figure 3 Robert "Councillor" Carter managed the fortune inherited from his grandfather "King" Carter.

Frances Anne Tasker Carter brought a "fair countenance" and 17 children to her husband's dynasty.

Elizabeth "Betty" Landon Carter was the fifth daughter of Robert Carter III. She married Spencer Ball in March of 1788 (Harrison 1981:355-356). Spencer Ball graduated from the University of New Jersey and pursued an unexceptional career as a Justice of the Peace in Westmoreland and Prince William counties. He often handled legal cases for the Carter family (Morton 1941:78). Upon arriving at the future site of Portici he soon found himself in the midst of yet another legal problem.

Three hundred and fifty acres of the tract of land which was to become the Balls' home had been rented to Aminidab Seekright for a term of ten years by George Carter on April 1, 1799. Aminidab Seekright was already in residence on the farm when the Balls arrived. Ferdinando Dreadnought was hired by Spencer Ball as a "Casual Ejector" to evict Seekright from the Carter farm. This he did with much zeal for Aminidab filed a complaint with the Dumfries District Court the following month against both George Carter and the Casual Ejector who:

> ...with force and arms entered into the said demised Premises with the Appurtenances and Ejected the said Aminidab from his said farm, and other wrongs to the said Aminidab then and there did to the great damage of the said Aminidab and against the Peace and Dignity of the Commonwealth, wherefore the said Aminidab saith he is injured and hath sustained Damage to the value of £100....

Spencer Ball was served with court papers as the "Tenant in possession of the Premises." He was required to testify that Ferdinando Dreadnought had ejected Aminidab Seekright at his request. Failure to do so would result in Dreadnought's prosecution. The case was repeatedly postponed and continued over the next four years. In May of 1805, the court awarded Aminidab Seekright the remaining term of his lease plus damages after George Carter and Spencer Ball admitted that the displaced tenant did indeed hold title to the farm for a ten-year term (Dumfries District Court Land Cause Book 1805-1816:1-3).

Aminidab Seekright was indeed an unlucky tenant. Following his ejection, he rented a 200-acre farm from Betty Ball and George Carter's sister, Priscilla Mitchell. He spent four days at this Tenement when Ferdinando Dreadnought appeared and ejected him once again. Personal injuries sustained by Aminidab Seekright on this occassion were valued at $500. The Casual Ejector was hired by Mrs. Margaret Bird who claimed she held title to the tenancy. Another lengthy court case ensued (Dumfries District Court Land Cause Book 1805-1816:288-317). Aminidab's next residence is not known. He was apparently not ejected again, at least within the jurisdiction of the Dumfries District Court.

The legal dispute with Aminidab Seekright does not appear to have interferred with the Ball family's way of life on their plantation in the Piedmont. Betty and Spencer Ball managed a fairly large estate at Pohoke, as the Ball Plantation was called by 1802 (Davis 1802:52-53). They sustained a combined average of 20 slaves and 18 horses or mules throughout their 33 year occupancy (Appendix A). Normally, all property brought into a marriage by a wife was absorbed into the husband's estate. This was not the case with the Balls. Betty Landon Carter maintained a separate inventory of her possessions which included plated tableware, mahogany furniture and carpets in addition to her dower slaves and livestock. Mrs. Ball also paid her own taxes (Prince William County Personal Property Tax Records, 1799-1832) [Betty's dowry in 1788 consisted of ten slaves, 500 acres of land in Maryland, and livestock valued at L1,000 (Morton 1941:229)].

In 1802 John Davis, roving English schoolmaster and diarist, took a temporary position with the Ball family. He established an "Academy" of sorts in one of Pohoke's "log huts." Here he instructed the seven Ball children along with all the neighbor's offspring. Davis apparently put forth a great effort in pursuing his female students in lieu of a more scholarly curriculum (Davis 1802:53-54).

Spencer Ball purchased the 762-acre Pohoke plantation from his brother-in-law George Carter in 1811. The land, including all buildings, was had for "6,174 72/100's current money" (Prince William County Deed Book 4, Role 9:387). In spite of this purchase, Spencer Ball does not appear on the Prince William County Land Tax Records until 1818.

The first quarter of the nineteenth century witnessed peak expansion and development in the Virginia Piedmont. This frontier of the eighteenth century was now made more accessible by the improvement of roads and transportation systems. Grain played a major role in this development. The tobacco industry was in a steady state of decline. The depleted soil, poor crops and low prices had taken their toll. Alternate crops were sought to supplement or replace tobacco and it was to cereal crops that Virginia now turned. This agricultural revolution did not occur overnight. It was a gradual change that was fueled by the demands of a war-time economy both in Europe and at home. The new crops required mills and a means of transport to local and foreign markets. Ultimately, it was grain that built the bridge between Tidewater and Piedmont Virginia and pushed the frontier across the Blue Ridge Mountains.

Spencer Ball lept upon this Piedmont bandwagon and in 1820 built a commodious new home for his family (Prince William County Land Tax Records 1818-1824). This new mansion house (Figure 4) supposedly suffered a series of damaging fires which prompted Ball to rename Pohoke plantation, Portici. Its classical namesake was a village near Herculaneum at the base of Vesuvius which was also prone to frequent fires (Freeman 1942:66; Whittet and Shepperson 1941:125). The family's former residence at Pohoke, along with all its dependencies, were subsequently absorbed into the nineteenth-century Portici plantation complex.

Spencer Ball died in 1831 bequeathing all his property and possessions, excluding six slaves, to his wife Betty Landon Carter Ball. One slave was left to each of his six surviving children (Prince William County Will Books M, N). Betty Ball managed Portici for the next nine years. She died in 1842 leaving the 762-acre plantation to her only surviving son, Alfred Ball. The slaves were divided between Alfred and his four sisters: Fanny Tasker Ball Lewis, Elizabeth Lucy Ball Carter, Louisa Ball Weir, and Adeline Ball Best (Prince William County Will Books M,N).

Alfred Ball (Figure 5) harkened back to his land amassing maternal forebearers. He increased the acreage of Portici between 1847 and 1849 to 1,022 acres (Prince William County Deed Books 23:393-395; 21:62,145). Alfred Ball also owned and managed several thousand acres of land in Loudoun and Fauquier counties. In addition, he maintained three plantations totaling 3,043 acres in Fairfax County (Fairfax County Land Tax Records 1848-1850). Alfred Ball consequently found himself in the time-honored predicament so often associated with the gentry, he was "land rich and money poor." Perhaps this is why only 25 of the 50 slaves he owned were claimed on his 1852 tax records (Prince William County Personal Property Tax Records 1852, 1853; Prince William County Will Book Q, Role 23:179).

Alfred Ball was a driving and respected force within his community and an elder and leader of Sudley Methodist Church. His wife Sarah Caroline Carter Ball, known as "Miss Sally," was noted for her exemplary Christian charity. She apparently modeled herself after the "virtuous woman" in the last chapter of Proverbs. Like this lady she was proficient in many vocations, but most often stretched out her hand to the poor and needy (Johnson et.al. 1982:60).

Alfred and Sally Ball were childless. When Alfred died in 1853 he divided his Prince William County property between his wife and his four sisters. Portici was allocated in the following manner; Sarah Carter Ball received 350 acres including the house and family cemetery; Fanny Lewis, 146 acres; Elizabeth Lucy

Figure 4 Portici's mansion house, built by Spencer Ball circa 1820. The detached kitchen in the foreground was constructed during the 1840s (Manassas National Battlefield Park).

Carter, 250 acres; Louisa Weir, 31 acres; Adeline Best, 283 acres (Prince William County Deed Book 23:392). There is a small, unresolved discrepancy concerning 38 acres in these transactions. Alfred Ball owned 1,022 acres but distributed 1,060 acres.

Figure 5 Alfred Ball brought Portici plantation to its zenith (Courtesy Emery Fred Best).

Alfred Ball's eldest sister Fanny Tasker married the Rev. John Talliaferro Lewis of "Stepney" plantation in 1810. Their fifth, and last, child was Francis Waring Lewis. "Frank" Lewis caught "gold fever" along with the rest of the nation and participated in the California Gold Rush of 1849. He headed West to make his fortune as a member of a team of mule drivers. He apparently did quite well in California and returned to Stepney in 1851. His fortune made, he pursued in earnest the heart and hand of Miss Frances Adeline Stuart of "Snow Hill." His endeavors were successful and Frank wed Miss Fannie (Figure 6) in 1853 (Nelson 1984:31). Fanny Tasker Ball Lewis sold her 146-acre Portici inheritance to her son Frank in 1855 for the sum of $100 dollars. The price also included one quarter of the widow Ball's 400-acre dower and the mansion house (Prince William County Deed Book 24:268).

Figure 6 Fannie and Frank Lewis of Portici (Courtesy Alice Jean Nelson).

Over the next four years Frank Lewis reconstructed the Portici plantation his uncle Alfred Ball had so carefully divided in 1853. He achieved this goal by purchasing the acreage his aunts had inherited from Alfred Ball. By 1859 Portici encompassed 769 acres (Prince William County Deed Books 24:443-446; 23:400-401). Frank Lewis worked this land with the aid of one free black and an average of 12 slaves. He and Fannie settled into a busy life raising children, grain, cattle, sheep, and hogs (Prince William County Personal Property Tax Records 1856-1861).

On July 18, 1861, life as the Lewises' knew it came to an abrupt halt. The sounds of Brig. Gen. P. G. T. Beauregard's skirmish at nearby Blackburns Ford had reached Portici. By July 21, 1861, the Lewis family had abandoned Portici and sought refuge at Fannie's former home Snow Hill after they:

> ...were notified by the Confederate officials that a battle was imminent and that their house would probably be much exposed, they evacuated the establishment, taking with them everything they could. A few articles were necessarily left behind, including some valuable and heavy furniture. This was stored in a very small room in an angle of the house, and the room securely nailed up; the Confederates promising that it should not be disturbed while they held the ground. The only shot which struck the house during the fight tore through this very room and knocked the [furniture] to smithereens... (Gray 1861:27-28).

The battle not only interrupted the Lewises' way of life, it also prompted the appearance of a new one. Fannie Lewis was well into her fourth pregnancy that July. The fright, fatigue and anxiety of her hasty removal ..."brought her to bed by the wayside of a son"... (Gray 1861:28). Thus John Beauregard arrived while the Lewises' were en route to Snow Hill.

Gen. Joseph E. Johnston (Figure 7), commanding Confederate Armies of the Shenandoah and of the Potomac (Appendix B), established his field headquarters at Portici. The strategic location of the Lewis house afforded the general with a sweeping view of Bull Run, approaches to the Stone Bridge, his troops near Manassas and the progress of the Battle (Johnston 1861:475). Johnston could also expeditiously deploy Confederate reinforcements from this vantage point to Brig. Gen. Beauregard in the field (Yoseloff 1956:210).

Figure 7 Gen. Joseph E. Johnston commanded the Confederate Armies of the Shenandoah and the Potomac during the First Battle of Manassas (Manassas National Battlefield Park).

The fighting along Bull Run on July 21, 1861 was the first major land battle of the Civil War. Ten hours and 900 lives later, America realized for the first time that there would be a long and bloody struggle before the conflict was resolved. The romanticized vision of gallant soldiers engaged in glorious combat was forever laid to rest.

Following the battle, Portici became a Confederate field hospital under the direction of Dr. John Thompson Darby. The 25-year-old chief-surgeon of Hampton's Legion ministered to Confederate and captured Federal wounded alike. Military field hospitals were as terrible as the battlefields which created them. These horrors soon found their way into the Lewis house and into almost every other standing structure in the area. Portici's kitchen (Cunningham 1958:33) and hallways became operating rooms. The wounded, dead, and dying covered the floors throughout the house and filled the dependencies. Medical supplies and skilled physicians were scarce.

On the day of the battle, the Ambulance Corps had not yet been organized in the Confederate Army. Each company was responsible for collecting its own wounded from the field and transporting them to the nearest field hospital. Federal prisoners were also enlisted in retrieving the wounded of both sides. Dr. Charles Carroll Gray, a captured Federal physician, worked until dark on the 21st carrying the wounded from the fields to the Lewis house. With nightfall the rescue efforts ceased though many wounded still remained in the fields (Gray 1861:18).

Some survivors of the carnage bivouacked near the Lewis house. They slept beneath caisson covers captured from the Union batteries. There were no tents. The heavy rain that fell the night of the 21st saturated everything, but provided no drinking water for the soldiers the next morning. Bull Run was the closest source of running water but it was muddy and, in many places, tainted by blood. The rain water which had collected on Portici's roof was also fouled with blood from the amputated limbs thrown out the windows by surgeons throughout the long night (Evans 1895:117).

The once stately manor house of Portici assumed a grisly facade in its role as field hospital. John Opie of the Fifth Virginia Infantry described the approach to a house which was probably Portici:

> ...There were two piles of legs, feet, hands and arms, all thrown together, and at a distance, resembled piles of corn at a corn-shucking. Many of the feet still retained the boot or shoe. Wounded men were lying on tables and surgeons, some of whom at the time were very unskillful, were carving away, like farmers in butchering season, while the poor devils under the knife yelled with pain. Many limbs were lost that should have been saved, and many lives were lost in trying to save limbs that should have been amputated. We found, in going over the field, dead men in every conceivable position, mangled, dismembered, disemboweled -- some torn literally to pieces. Some in their death struggles, had torn up the ground around where they fell. Others had pulled up every weed or blade of grass that was in their reach...(Opie 1899:39-40).

By July 23, all the visible wounded had been removed from the field. Those unfortunates who had fallen or crawled into the underbrush went unnoticed for days. One first sergeant from Ricketts' Battery was found alive five days after the fight (Gray 1861:20).

Among the Federal wounded taken to Portici was Artillery Capt. James Brewerton Ricketts (Figure 8). Ricketts had "a leg wound through the thigh just above the knee chipping the bone" (Gray 1861:19). His wife Fanny made her way to Manassas from Washington, D.C., arriving on July 26, 1861. Mistaken reports of Ricketts' death during the battle had delayed her journey (Moore 1862:533).

> ...Oh nothing, no words can describe the horrors around me. Two men dead and covered with blood are carried down the stairs as I waited to let them pass. On a table in the open hall a man was undergoing amputation of the leg. At the foot of the stairs two bloody legs lay and through all I went to my husband...(Ricketts 1861:2).

Figure 8 Capt. James B. Ricketts and his devoted wife Fanny (Ricketts and Ricketts 1981:23; original in collection of the Library of Congress, Washington, D.C.). This photograph was taken following Ricketts' promotion to Brig. Gen. after his return from Richmond, Virginia.

Mrs. Ricketts spent eight days at Portici nursing her husband and ministering to the many needs of the other patients:

> ...In the opposite room are ten dying or wounded men. Next to us are three, one with a gangrenous thigh where it is amputated. The smell is horrible. In another room are five Carolinians, one dying, son of Henry S. Middleton. His father is with him.... Downstairs there are some forty men in the various stages of death or possible recovery. Blood runs on the floor, the smell is dreadful but no language can describe it.... I have asked for a fan, the flies are terrible. I cannot write of the sense of horror, my very heart is sick... I was awake all night, the groans of the dying sounding in my ears. As I look from the window there is a severed leg under a tree, it has been there all day yesterday and I intend asking to have it removed.... No one can dream of the sickening horrors of this place... (Ricketts 1861:2-6).

On August 2, 1861 Fanny Ricketts moved with her transferred husband to the Richmond Poorhouse. They remained at this make-shift general hospital until the Captain was released in a prisoner exchange in December of 1861 (Ricketts 1861:73). Ricketts returned to active duty in May of 1862. He went on to fight in almost every major engagement in the Virginia theater of the American Civil War from the Battle of Second Manassas to the Siege of Petersburg. Ricketts was seriously wounded five more times before the end of the War (Ricketts 1981:22-25).

Portici stood abandoned during the winter of 1861 to 1862. The house occasionally serving as temporary Officers' quarters for Federal troops passing through the area. Lt. Col. Theodore Gates of the 20th New York State Militia found overnight accommodations here on March 14, 1862. His account of that visit is the last known reference to the Lewis House before it burned later that year. Gates had arrived with his regiment guided by Capt. J. R. Tappen, to tour the July 21, 1861 battlefield. There was a steady downpour that day and the officers found temporary shelter at Portici. The enlisted men sought refuge in the abandoned Confederate winter huts which littered the area. Gates described the house:

> ...a spacious building, with large rooms above and below, and vast fireplaces; into these were piled cartloads of wood, and roaring fires, regardless of insurance, soon gave us warmth and light, while our savory supper smoked upon improvised tables. The boisterous March winds beat like ocean billows against the great barn-like house, while the rain-drops dashed themselves into spray against the window-panes. But all within was cheery and content -- the sounds of the elemental strife without enhancing the sense of comfort of our little party, basking in the glow of our generous fire... (Gates 1879:184-185).

Gates and his men were called back to camp late that night. After collecting his 200 men from their "log huts" they marched east to Alexandria, Virginia from the Lewis house "leaving rousing fires behind" (Gates 1879:186).

Lewis family tradition holds that the house was burned by the Pennsylvania Bucktails after the Second Battle of Manassas in August of 1862. The Bucktails were indeed one of the last troops to leave the area following the battle. However, the house was still standing in mid-October 1863. It was apparently used as a makeshift field hospital by the 9th Virginia Cavalry following a series of skirmishes after the battle at Bristoe Station (Trask 1864:29). It is not unreasonable to consider, based upon Col. Gates' account, that careless "guests" were a contributing factor in the fire which ultimately destroyed Portici.

Fannie Lewis and her children spent the next four years at a house she had rented in Loudoun County called "Carter's Green" (Nelson 1984:38,44). Meanwhile, Frank Lewis enlisted with the Company B (the Richmond Rifles), 8th Virginia Infantry from Fauquier County sometime between May and November of 1861 (F.W. Lewis File, Military History Section, National Archives; Devine 1983:71). Private Lewis was assigned to Col. Eppa Hunton's command and stationed at Manassas Junction. He spent the winter of 1861-1862 supervising the packing of mule trains with grain and general supplies sent from Manassas Junction to Bacon Race. His previous experience with mule trains during the California Gold Rush apparently influenced his receipt of this assignment (Nelson 1984:43). There are no other records concerning the remainder of Frank Lewises' military career. He apparently did not reenlist when his one-year enlistment expired. Family accounts claim Frank Lewis also served as a scout for Col. John S. Mosby and accompanied him on one of his famous raids. He supposedly received a personal note from Mosby amounting to $300 for his participation (Nelson 1984:45).

With the end of the War in 1865, the Lewises returned to Portici and set about rebuilding their lives and home (Lewis Family Bible). Along with the rest of Virginia, they found a scene of utter devastation. The "Old Dominion" had been one of the primary battlegrounds of the War. In addition to this wholesale destruction, the elimination of slavery undermined the economic structure of the state. Devising a new economic system alone would have been challenge enough. Defeat made it even more difficult. But the most devastating blow to Virginia was delivered by her sacrifice of an entire generation during the War. Of the 170,000 who served Virginia, 15,000 died (Dabney 1971:353-354).

Virginia was a Military District from 1865 to 1870. "Reconstruction" ended in January 1870, when the Federal troops were withdrawn. Some southern states were under military occupation until 1877 (Dabney 1971:373).

Without slaves to work the land and without sons to oversee the work, farmers worked on a much smaller scale in the last quarter of the nineteenth century. Frank Lewis was no exception. He hastily rebuilt Portici for his growing family during the late 1860s. A modest, wooden farm house replaced the family's Georgian mansion. "Portici II" was constructed on the ridge just east of the former house site using bricks salvaged from the rubble of the older house. Unfortunately the property burned soon after its construction. "Portici III" emerged from these smoldering ruins in the 1870s. Much of the earlier debris was merely left beneath this third, and last Portici (Figure 9).

The Lewises never fully recovered from their losses after the War. To survive, Frank Lewis sold portions of his "Portici Farm" and by 1896 approximately 396 acres had been disposed (Prince William County Land Tax Records 1896-1897:16).

Fannie Lewis passed away in 1899. Her bereaved husband remained at Portici while his unmarried and widowed children gradually assumed the daily operation of the farm. The Lewises' youngest daughter, Rosa Belle, remained at home, caring for her aged father. Her brothers -- Frank Warner and Robert Lee -- shared the agricultural responsibilities (Figure 10).

Warner Lewis built a small home called "Tadpole Flat" in the field adjoining the family home. Rosa Belle, Robert Lee and his two small children -- Robert Lee, Jr. and Janie -- resided with Frank Lewis at Portici III until his death in 1913.

Robert Lee Lewis inherited 75 acres of Portici Farm which included the "dwelling house." Sixty acres were deeded to the children of his deceased sister,

Figure 9 Portici III, the Lewis House.

Figure 10 Rosa Belle Lewis and brother Robert Lee Lewis (Courtesy Alice Jean Nelson).

Mary Stuart Lewis Pugh. The remaining acreage was to be divided between Warner and Rosa Lewis. Approximately 110 acres had previously been given to his niece, Fannie Tasker Lewis Lee, as a wedding gift (Prince William County Deed Book X:386-387).

In keeping with family tradition, Robert Lee Lewis purchased back 50 acres from his sister Mary's children and most of his brother Warner's inheritance as well (Prince William County Deed Book X:386). Robert Lewis managed the 178-acre farm until his death in 1938.

Robert Lewis, Jr. inherited Portici Farm upon his father's passing. Lewis retained Portici until ill health forced him to sell the family homestead in 1950 to William Wheeler (Prince William County Deed Book 143:371). And so, with this transaction, Portici passed from the family for the first time in 226 years.

William Wheeler recognized the historic significance of the land he purchased from Robert Lewis, Jr. To preserve this valuable property from development, he sold the tract to the National Park Foundation in 1976 (Prince William County Deed Book 886:521). The National Park Foundation held the property until the Department of the Interior had sufficient funds to obtain the property. In 1985, Manassas National Battlefield Park finally acquired Portici under the terms of the Battlefield Expansion Act, Public Law 96-442 (October 13, 1980).

3 THE ARCHEOLOGY

By its very nature archeology is a destructive science. The ideal situation entails retrieving the maximum amount of data by removing as little of the resource as possible. The archeology conducted at Portici was designed primarily to identify the remains of this Piedmont plantation complex. Additional project objectives included establishing the integrity of the archeological resource and then examining it within the confines of the National Register of Historic Places' criteria for nomination (Appendix D).

A detailed but unscaled map drawn by Confederate cartographers in 1861, suggested the location of the Portici plantation complex (Figure 11). More recently, the approximate location of Portici and three ancillary sites (44PW335, 44PW336, 44PW339) thought to be associated with the plantation complex were recorded during a Phase I survey by James Madison University in 1985 (Cromwell and McIver 1985). The location and dimensions of each site were established in 1986, during a preliminary pedestrian survey.

Archeological fieldwork began May 1986, with the systematic surface collection of site 44PW335, Pohoke and site 44PW348, Portici. Site perimeters were delineated with surveyors flags based upon the presence or absence of artifacts and architectural debris (For information concerning sites 44PW336 and 44PW339 see Appendix E). A point was chosen near the center of each site area and established as the site datum. This datum is the 0,0 coordinate which becomes the main point of reference for placing all the cultural material recovered from the site in a horizontal context. A transit was then used to set out base lines in each of the four cardinal directions. Spikes were placed at ten-foot intervals along each line. A grid of ten-by-ten foot square units was established across each site area. Each of the 702 units at site 44PW348 and the 406 units at site 44PW335 was then inspected for historic and prehistoric artifacts. All cultural material was collected. Architectural material including bricks, sandstone footers, paving slate, roofing slate, and mortar was recorded but not collected.

Surface Collection at Portici and Pohoke -- 1986

Surface collecting taps into the cultural information contained within the plowzone of archeological sites. It is a method which not only locates sites but also potentially illustrates patterns of life. The surface collections at sites 44PW335 and 44PW348 produced a rich and diverse spectrum of artifacts. Simply amassing all this material and locating the sites, however, is not enough.

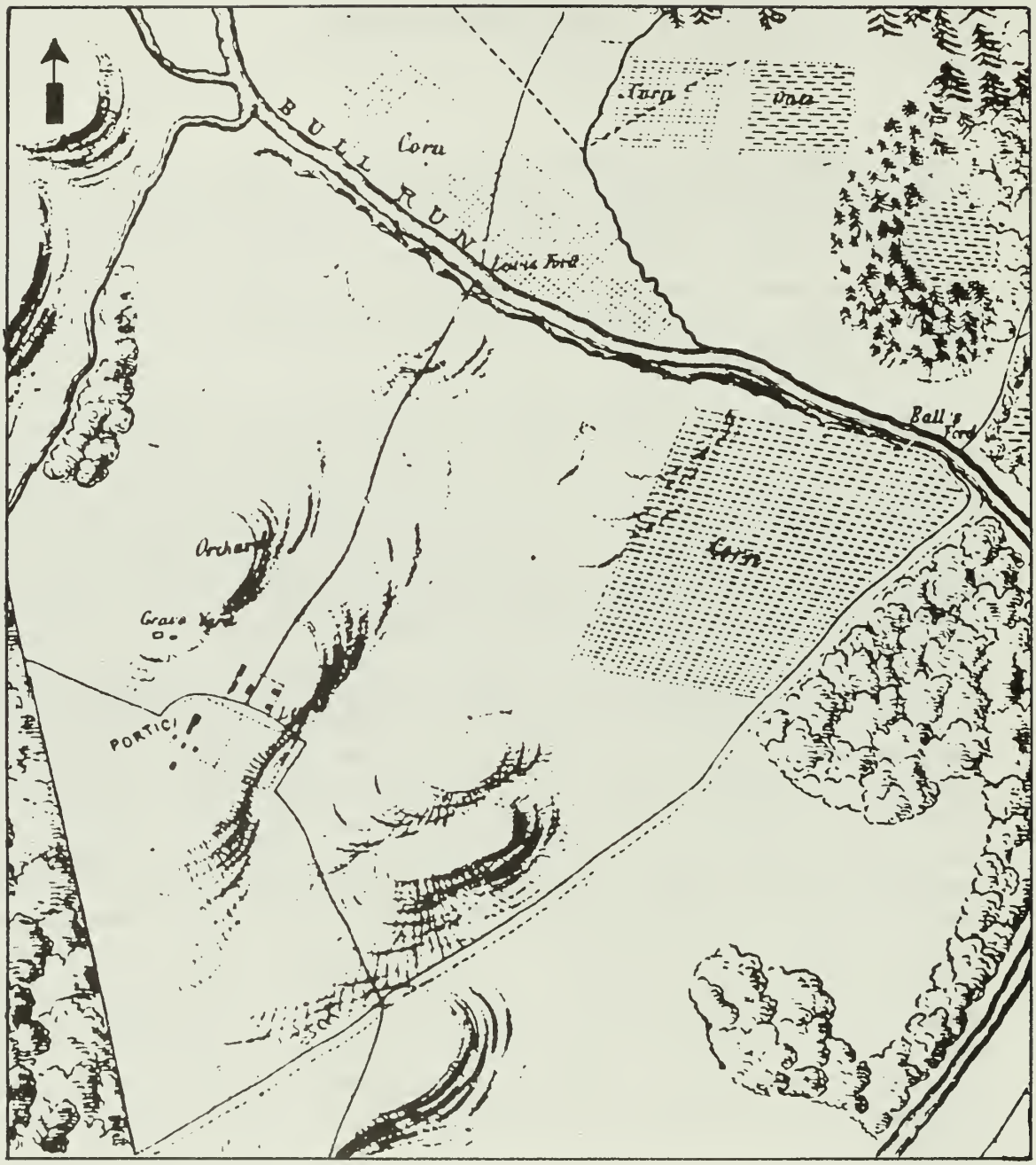


Figure 11 Detail of unscaled 1861 Confederate map suggests the location of Portici plantation (Manassas National Battlefield Park).

This information must be placed in a useful format. All artifacts, whether collected or simply recorded, were therefore plotted on a grid map for each site. These artifact distribution maps help to visualize and highlight the patterns generated by structures or specialized activity areas.

The patterns created by the distribution of surface artifacts are somewhat distorted if the site area has been cultivated. Both site 44PW348 and site 44PW335 have been extensively cultivated for more than a century. The distance an artifact is moved by plowing is primarily influenced by the size of the artifact. The larger the artifact, for example a brick, the greater the chance of it being moved and the greater the distance it can cover (Lewarch and O'Brien 1981:36,39). Smaller artifacts, such as buttons, would experience less lateral but greater vertical movement. While the precise point of deposition may be lost, the overall patterns of the site are not. Though slightly out of focus, the patterns generated by the surface collections provide valuable information about the site and its occupants.

The surface collection at 44PW348 confirmed that it was the site of the burned nineteenth-century plantation of Portici. The comprehensive artifact distribution map identified concentrations suggesting the locations of the mansion house three smaller dependencies, as well as a small, Late Archaic component. To better define the location and function of each of the historic structures, artifact-specific distribution maps were generated. In this manner, more detailed patterns associated with specific activities conducted at these structures would become more apparent (Appendix F).

The material collected at site 44PW335 included a rich assemblage of early eighteenth- through mid-nineteenth-century (circa 1720 through circa 1860) domestic material. This surface collection suggested the probable location of Robert Councillor Carter and George Carters' eighteenth-century tenement which evolved into the Ball Plantation known as Pohoke. At least three historic and one prehistoric clusters emerged from the artifact distribution maps (Appendix G). The nineteenth-century elements in the assemblage pointed to the continued use of the site, or at least portions of the site, as a component of the Portici plantation complex. Prior to this surface collection it was thought that the main house sites of Pohoke and Portici shared the same location. Armed with this important new information, test excavations began at the two plantation sites eighteenth-century Pohoke and its successor, nineteenth-century Portici (see Figure 30).

Archeological Excavations at Portici -- 1986

Excavations during the 1986 season concentrated on locating and exposing the foundations of the mansion house at Portici, site 44PW348. Placement of the first ten-by-ten foot test excavation unit was determined by considering the artifact distribution patterns in conjunction with topographic anomalies, such as slumping. Though the site area was newly planted in corn, changes in the terrain were still apparent. Soil was removed in natural stratigraphic zones by shovel. All fill was processed through one-quarter-inch mesh screen. Following the removal of 1.7 feet of plowzone from Unit 1, the northeast corner of the mansion house foundation was exposed.

Three additional ten-by-ten-foot units, four five-by-ten- foot units, and one three-by-ten-foot unit were excavated to the base of the plowzone during July and August 1986. The north foundation wall of the house, and its massive chimney footing were soon revealed. In the course of removing the modern plowzone, evidence of late nineteenth- and early twentieth-century trash dumping was encountered throughout the slump area within the house. The fill material was diverse, ranging from burned fence posts and barbed wire to rubber galoshes and Lysol bottles. The frequent dumping of trash was necessary to maintain a cultivatable ground surface and combat the constant slumping within the house ruins.

Fill was removed from all excavation units in natural stratigraphic layers with shovels and trowels. It was then processed through one-quarter-inch mesh screen. If small organic or other items were present in the fill, the soil was collected in trash bags. This material was later processed through stacked one-quarter-inch over one-sixteenth-inch mesh screen with water. The residual material collected in the one-sixteenth-inch mesh screen was dried and carefully examined for any cultural or organic material. One soil sample was collected from each stratigraphic zone. These samples were processed through a flotation device to check for botanical material.

The dimensions of Unit 1 were reduced to five-by-ten feet to explore the vertical aspects of the mansion house and its slump. The unit descended along the interior walls of the houses' northeast corner into an English cellar. The stratigraphy encountered in this unit graphically depicted the sequence of destruction as Portici burned in 1863 (Figure 12; Appendix H). Beneath the brick rubble of the north chimney lay the compressed, charred remains of the two-and-one-half story frame house. The structure collapsed into its own cellar as it burned.

Figure 12 West stratigraphic profile of Unit 1 at Portici detailing the destruction sequence of the mansion house.

Figure 13 West stratigraphic profile of Unit 7 dramatically illustrates how the burning structure collapsed into its own cellar and was later invaded by various burrowing animals.

Beneath and interspersed with the rubble of the burned mansion house were vestiges of the military and medical occupation circa 1861 to circa 1863. Below this bellum material was a small hearth and brick hearth apron associated with cellar slave quarters. Approximately eight inches of domestic trash was found below the packed clay cellar floor and hearth apron. This antebellum fill represents an occupation spanning circa 1820 to circa 1861. It was apparently generated by the cellar quarter occupants, who were probably house servants. The house foundation itself is built on bedrock.

A second unit designed for vertical exploration was placed near the center of the house. Unit 7 encountered extensive disturbances by ground hog and skunk burrows. In spite of these intrusions, the stratigraphy (Figure 13) corresponded with that in Unit 1. The English cellar was found to extend beneath the entire house. The packed clay cellar floor was left unexcavated in this unit.

This preliminary testing sufficiently demonstrated Portici's archeological integrity and the overburden covering the unexcavated portion of the site was mechanically stripped in the fall of 1986. The sandstone foundation of the mansion house was exposed in its entirety (Figure 14). The 26-inch wide foundation measured 37 feet (north-south)-by-36.9 feet (east-west). The quarried stones were set with mortar above the historic grade. Foundation stones below grade were chinked with light yellowish-brown (10YR6/4) very fine-grained, silty clay. The interior of the walls within the cellar were pargeted.

Figure 14 Exposed sandstone foundations of Portici's mansion house. Stone porch piers and drainage features (left) are present along the formal east front of the house.

Archeological Excavations at Pohoke -- 1986

A similar testing program employing topography and artifact distribution was implemented at site 44PW335, Pohoke (Figure 15;see Appendix G). The first units excavated were placed on an eroded ridge. Consequently, there was an extremely shallow plow zone extending only one to two inches in depth. Each initial test unit measured five-by-ten feet and was excavated to subsoil. Some test units were later expanded to further define the historic features.

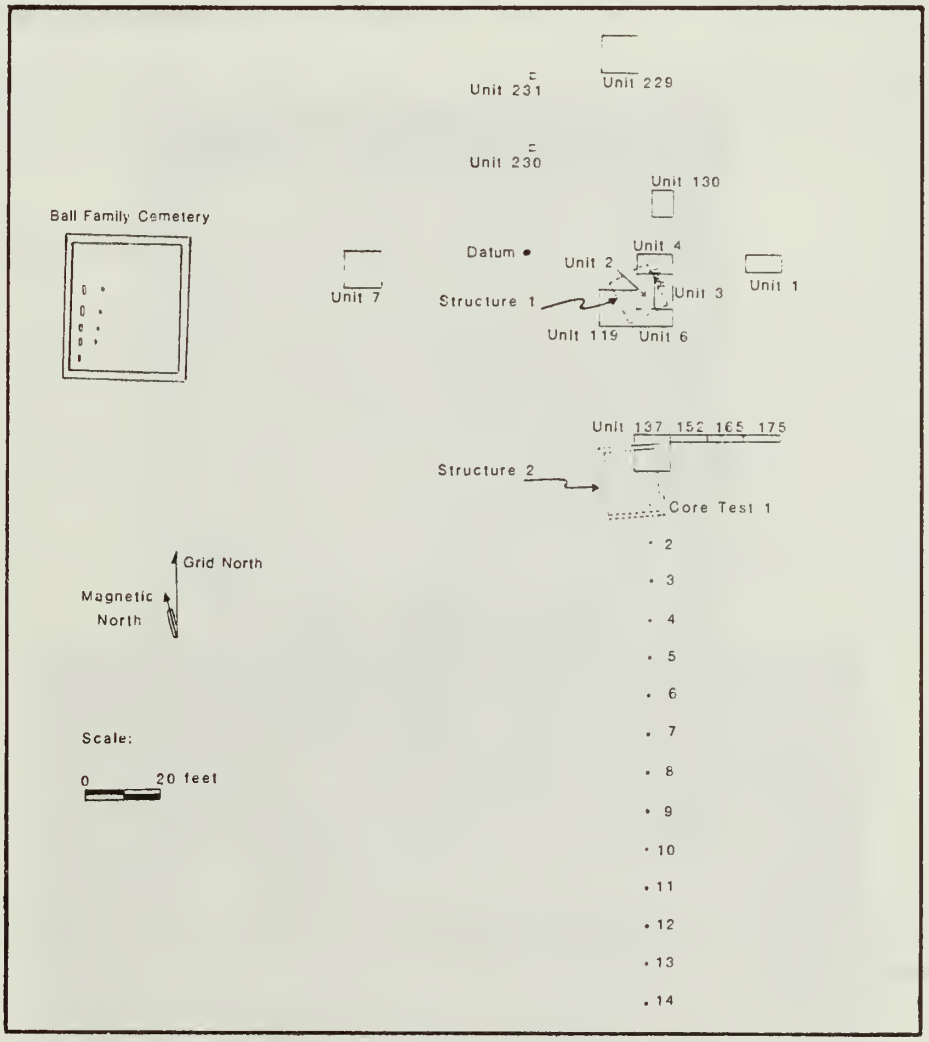


Figure 15 Archeological plan of Pohoke, site 44PW335 and the Ball Family Cemetery, site 44PW334.

Unit 1 was terminated soon after it was begun. Sterile subsoil was exposed within approximately four inches of the ground surface. The 373 artifacts recovered from the plowzone dated to the first half of the nineteenth century.

Units 2, 3, and 4 revealed a small sandstone chimney footing measuring approximately four-by-seven feet (Figure 16). No other architectural elements associated with this structure remained. The shallow, extremely eroded nature of this portion of the site coupled with extensive agricultural activity may explain this absence. Artifact distribution and stratigraphy suggest the single chimney was located on the northeast exterior wall of this structure.

Figure 16 Sandstone chimney footing at Structure 1, the nineteenth-century Portici slave quarters at Pohoke.

The cultural material associated with Structure 1 included a high frequency of buttons (see Chapter 11). Current research points to slave quilt making as a possible source for dense concentrations of unmatched buttons associated with small dwellings (Kelso and Sanford 1983:25-27). High frequencies of unmatched buttons are often associated with plantation wash houses. The hearth in Structure 1 measures approximately four-by-seven feet which is too small for use in most laundries (Leach 1980).

The buttons, in conjunction with the ceramic assemblage (Otto 1984:173) and a single, blue glass, faceted-bead (Theresa Singleton 1989:personal communication; Otto 1984:174), suggested this structure served as a nineteenth-century slave quarter. The artifact record, in addition to the documentary evidence, also suggests these quarters were associated with the Portici plantation complex. The material recovered from Unit 1, which is located approximately 22 feet east of Structure 1, was probably generated by the quarter residents.

Archeological Excavations at Portici -- 1987

Late in the summer of 1987 excavations resumed at Portici. Particular attention was paid to the southern portion of the site area. The foundations of a 12-by-16 foot detached dependency were exposed. This structure is located approximately 3 feet south of the mansion house. The foundation of a small enclosed walkway hyphenating the mansion house and the South Dependency was also revealed. Locating these two structures (Figure 17) provided the information necessary to identify which of three Civil War vintage photographs and sketches labeled Portici was indeed the house which served as Johnston's headquarters.

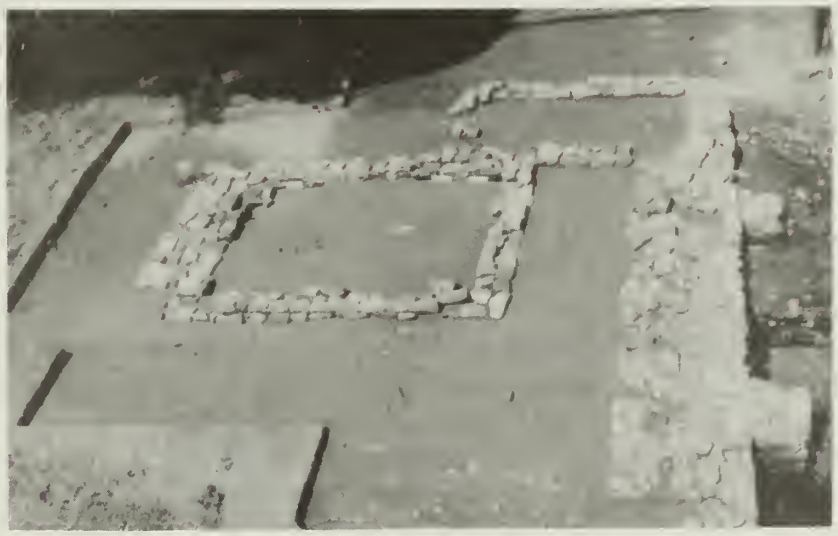


Figure 17 Portici's detached winter kitchen (center) and enclosed walkway.

At Portici, weather-related slumping in Unit 7 resulted in an unplanned expansion to the east. Three interior brick cellar walls were exposed in the process. Apparently the four-room floor plan of the Georgian house above was reflected in the cellar.

Excavation of the formal, east front of the mansion house began next. Vestiges of four stone piers which had supported the porch were exposed. As anticipated, the area beneath the porch was practically void of cultural debris, although a drainage feature was present beneath the porch. This levee-like construction spans the length of the house and porch. It continues for an unknown distance to the north. Its presence suggests a recurrent problem with water in the cellar, a problem the excavators shared with the Balls and Lewises. Two other clay drainage features associated with the gutter down-spouts were found at opposing ends of the porch (see Figure 14).

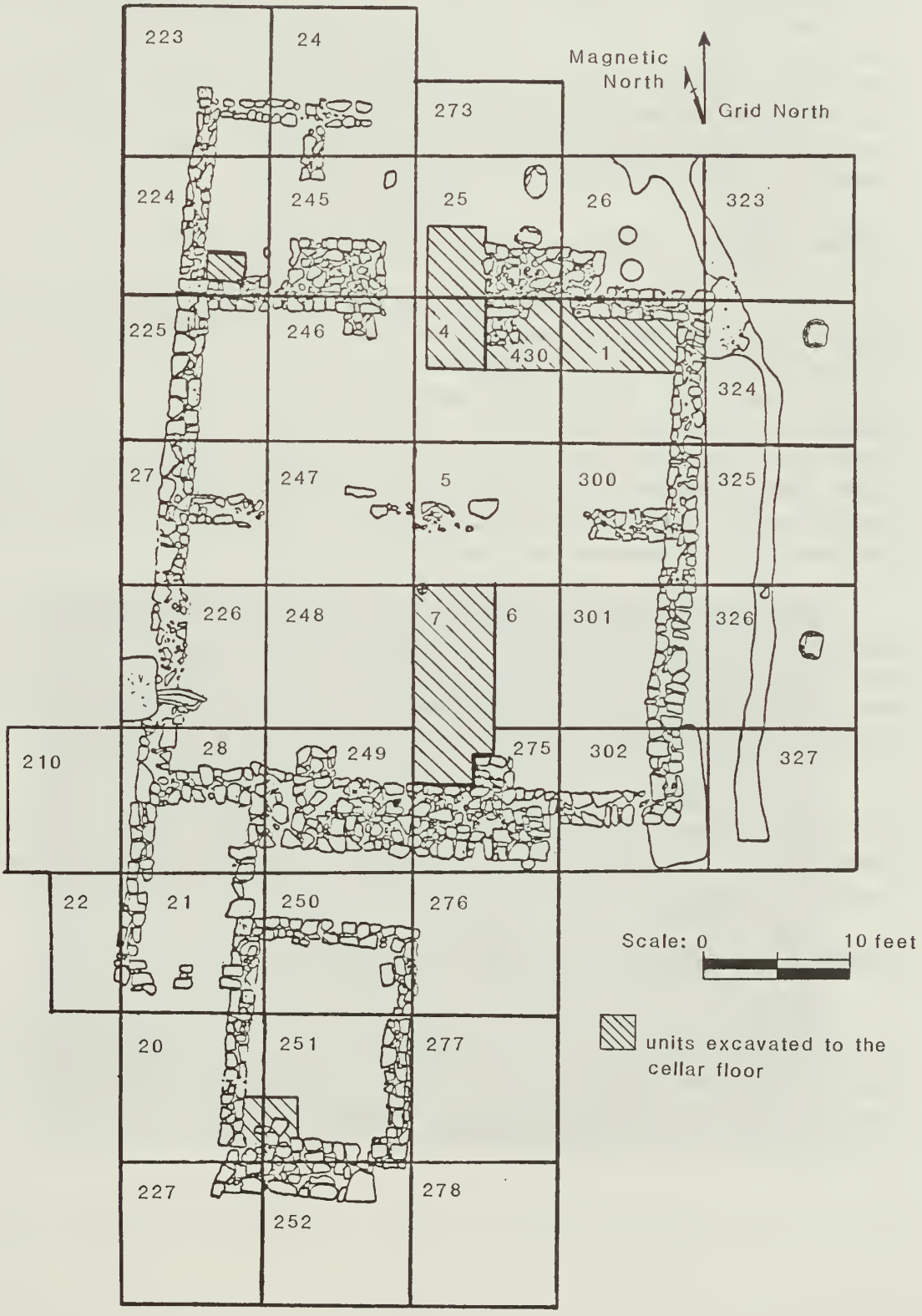
The fall of 1987 was spent excavating the north portion of the site. A small addition abutting the exterior northwest corner of the house was defined. This addition mirrors the size, placement, and construction of the enclosed walkway or "south hyphen" (Figure 18). Both structures are composed of field sandstone, mortar, clay, and occasional scrap bricks. Each represents later, distinct phases of construction which antedate the initial mansion house construction. Together, the two later additions complete the Georgian-symmetry of the house. Practically, the north addition may have served as a side entrance to the first floor of the mansion house as did its southern counterpart.

A variety of postholes were discovered along the exterior north wall of the mansion house (Figure 18). These included two associated with scaffolding from the construction of the north chimney, two associated with the covered exterior portal of the cellar entrance, and one large posthole which apparently predates the house and the addition. The latter feature contained burned architectural debris beneath a sterile clay lens. Its function is unknown, althought it may be associated with an earlier house fire.

Archeological Excavations and Radar Survey at Pohoke -- 1987

A remote sensing survey was conducted in October 1987 at Pohoke by James Doolittle of the Soil Conservation Service. This survey was originally designed to locate the number of interments and the original boundaries of the Ball Family Cemetery, site 44PW334. Pohoke is located approximately 100 feet east of the graveyard, the survey was therefore expanded to include it. This additional work was completed in the hope of locating the eighteenth-century house site at Pohoke.

Figure 18 Archeological plan of Portici mansion house, additions and south dependency with excavation grid.



Ground-penetrating radar can detect a wide variety of buried material such as metal, rock, air pockets, or changes in the soil beneath the ground surface such as animal burrows or cultural features. It detects these objects as echoes of a radio wave, much as sonar detects through sound waves underwater. Ground-penetrating radar cannot, however, necessarily differentiate between those materials. Subsequent archeological testing (Units 130, 229, 230 and 231) of all the radar anomalies at Pohoke revealed them to be naturally occurring bedrock outcrops. None of the anticipated cultural features materialized. An early snowfall curtailed further work on either site.

Archeological Excavations at Portici -- 1988

Fieldwork resumed at Portici during the summer of 1988. A feature was exposed along the exterior edge of the mansion's north chimney footing during the last weekend of the preceding season. It proved to be a bulkhead entrance to the cellar (Figure 19). Only the east half of the entrance was excavated. The steps of the cellar entrance were cut into the grade and set with scrap brick. There were nine risers in the staircase. The entrance is approximately seven feet wide. Both the width of the doorway and the shallow steps are ideal for rolling hogsheads and other bulk supplies into the cellar. This type of entrance suggests the presence of storerooms and possibly a wine cellar.

The earlier excavations in the northeast corner of Portici's cellar were now expanded to intersect the cellar entrance. Consequently, the cellar hearth and brick hearth apron were completely exposed. A single-coarse brick interior wall was also revealed. Portions of this wall were jerry-built with timbers and brick fragments to cordon off the hearth area (see Figures 18 and 19).

After a multitude of unforeseen interruptions and extensions, excavations at the Portici mansion house site were terminated in July of 1988 (Figure 20). Approximately 15% of the mansion house cellar fill was excavated during the course of this project.

Archeological Excavations at Pohoke -- 1988

The remaining 1988 field season was devoted to searching for the eighteenth-century plantation house site of Pohoke. Returning to the proverbial archeological drawing board, topography, and the artifact distribution map were once again employed. In an effort to locate the elusive dwelling-house of Pohoke, a final ten-by-ten foot test unit was excavated.

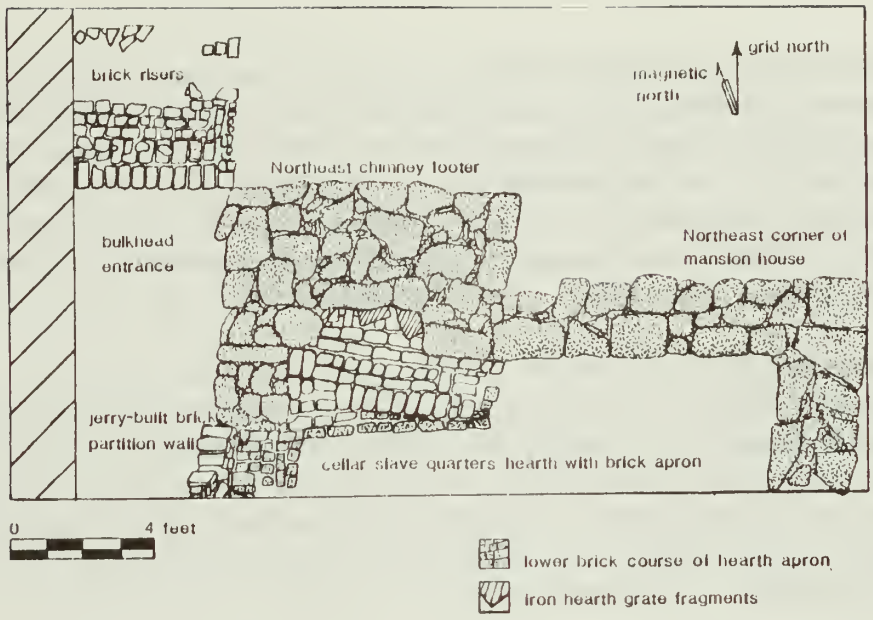


Figure 19 Archeological plan of bulkhead entrance and cellar slave quarters at Portici.

Figure 20 Aerial view of archeological excavations at Portici, site 44PW348. View to the west.

Unit 137 (see Figure 15) was placed on the south-eastern slope of the eroded ridge explored in the early phases of the project. A substantial plowzone was encountered because of this location. Beneath the disturbed agricultural stratum lay the cumulative remains of nineteenth-century trash used to fill a cellar hole. Below these 40-odd years of debris was a robbed sandstone foundation. The northeast corner of the eighteenth-century dwelling house which became Pohoke, was located at last (Appendix I).

Structure 2 (see Figure 15) was literally carved out of the landscape sometime during the second quarter of the eighteenth century. The Triassic sandstone outcrop was apparently mined for the foundation stones used in this structure. The house was then erected in this niche carved into the outcrop (Figure 21). A narrow builders trench stood between the east cellar wall and the outcrop.

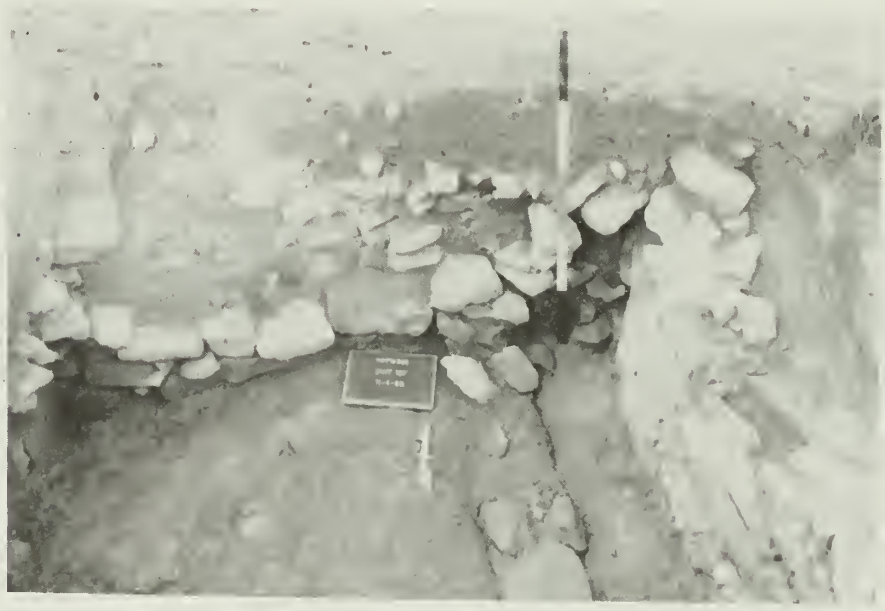


Figure 21 North stratigraphic profile of Unit 137 at Pohoke. Cut face of sandstone outcrop (far right), with remnants of Structure 2's robbed north and east foundation walls and builders trench (right).

Time and the extreme depth of the foundation did not permit exposing the complete residual foundation. A coring tool was used to probe the extent of the cellar deposit. The cellar fill extended approximately eight feet to the west and two feet to the south. The dimensions for the eighteenth-century tenant dwelling-houses as directed by Robert Councillor Carter measured 16-by-20 feet. Archeological testing suggests that Unit 137 represents the northeast portion of a half-cellar beneath the dwelling house.

The orchard stipulated in the Carter lease was apparently located approximately 500 feet northwest of the dwelling house. This apple and peach orchard survived at least until circa 1861 (see Figure 10). The remains of the 20-by-30 foot tobacco house, fence and smaller outbuildings associated with this first "dwelling house" have not been located. Neither were the ancillary structures of Spencer Ball's Pohoke discovered. The surface map of 44PW335 suggests the location of one of these ancillary structures (see Appendix G).

Core Testing at Pohoke -- 1988

Late in the fall of 1988, a distinct vegetative pattern emerged in a linear fashion due south of Structure 2. The pattern alluded to the location of at least five of these elusive outbuildings. Time did not permit extensive archeological testing of these anomalies. A series of coring tests were, however, conducted (see Figure 15).

No cultural or architectural information was recovered through the core testing program. The stratigraphy sampled did not suggest habitation or specialized activity areas. If these alleged structures were of an impermanant nature, little such evidence would be expected. A more extensive testing program would be necessary to determine the precise nature of the anomlies.

4 THE ARCHITECTURE

When the first immigrants arrived in Virginia they built crude wattle and daub, hut-like structures clustered together behind great palisades. The resident Native American population steadily disappeared with each successive wave of the English invasion. Iron nails, hardware, and tools were brought from England. Combined with the abundant sources of timber on this new land, frame structures soon replaced the mud huts. The climate and available building materials, together with the lack of skilled craftsmen in the New World, merged to produce the vernacular or folk tradition of American architecture.

Born of necessity, available supplies, and memories of the homes left behind in Europe, these vernacular structures were built without formal plans. The buildings were generally designed and constructed by their occupants. As regional culture matured, a strictly coded "grammar" of folk architecture developed in Virginia. The English-based house designs were further adapted to the variations of regional climates (Glassie 1975).

As colonial society became wealthier and more established, a second tradition appeared in American domestic architecture. Academic architecture came from plans created by trained architects. These buildings were derived from more formal architectural orders and reflected contemporary designs. This much less personalized architecture often reflecting more of the architect than the occupant.

From the early seventeenth century through the late eighteenth century, American vernacular architecture slowly developed under the influence of contemporary academic styles. Adaptive features based upon climate and local construction materials were particularly influential.

Seventeenth-century vernacular house forms in Virginia consisted of a wide variety of styles based upon British house plans. By the end of that century, however, a predominant form emerged as characteristic of the Virginia vernacular house. This form was a one-and-one-half-story frame structure with one or two rooms per floor (Carson 1974:186). This frame dwelling typically placed a chimney on the gable at one or both ends. It was usually covered with unpainted clapboards. The latter were made by splitting four-foot lengths of timber, usually chestnut or oak (Isaac 1982:33).

By the early eighteenth century these small houses served most of Virginia's population. The predominate floorplan was also of British origin. It featured a large main room which was directly accessed from the exterior. This room was known as the hall. The second, smaller room was accessed through the hall. This inner, more private room was the parlor or chamber (Upton 1982:96-97).

> ...the houses here [in Virginia] are almost all of wood, covered with the same; the roof with shingles, the sides and ends with thin boards, and not always lathed and plastered within; only those of the better sort are finished in that manner, and painted on the outside. The chimneys are sometimes of brick, but more commonly of wood, coated on the inside with clay. The windows of the best sort have glass in them; the rest have none, and only wooden shutters...(Isaac 1982:33).

Members from all strata of society built and occupied the style of house described above. The owner's degree of affluence was often exhibited through the construction materials employed. Those built of brick signified personal wealth and also expressed a greater degree of permanence. Whatever the station of the occupants, this style of house reflects the primary functions it was constructed to satisfy (Herman and Orr 1975:312).

Archeological and documentary evidence suggest the earliest dwelling house built at Pohoke, site 44PW335, was probably in the vernacular hall and parlor style. It was likely very similar in plan and appearance to the frame cottage "Pear Valley" (Figures 22 and 23). This structure was built in Northampton County, Virginia. Archeological evidence suggests a construction date during the first quarter of the eighteenth century (Kelso 1989: personal communication). Both cottages, measuring approximately 16-by-20 feet, were constructed on a sandstone foundation. A half-cellar was placed beneath the northern portion of Pohoke, however, no cellar is present beneath Pear Valley.

The northeast quadrant of Pohoke's eighteenth-century dwelling house, Structure 2, was exposed during archeological excavations. The exterior foundation dimensions measure approximately 16 feet (east-west)-by-20 feet (north-south). These dimensions were determined by employing a coring tool and probe. All that remains of the original structure is a robbed sandstone foundation beneath a backfilled cellar hole. The half-cellar lies beneath the north portion of the structure.

Figure 22 Pear Valley in Northampton County, Virginia (Courtesy William Kelso). The first dwelling house at Pohoke was probably similar in plan and appearance to this eighteenth-century structure.

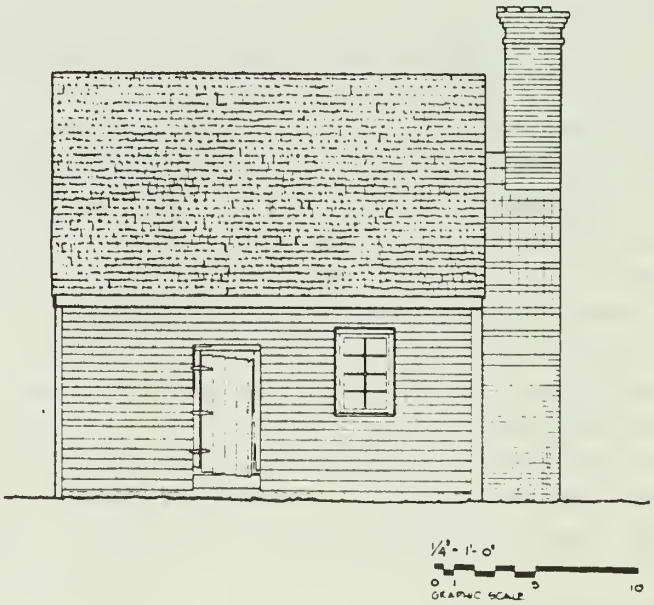


Figure 23 East elevation of Pear Valley (HABS drawing).

The half-cellar and north foundation wall of Structure 2 were set into the south descending slope of a Triassic sandstone outcrop. The location chosen for the foundation was literally carved out of the bedrock. A narrow builders-trench separates the bedrock outcrop from the remnants of the east foundation wall (see Figure 21). The east wall was robbed to the first course of cut sandstone laid in the early eighteenth century. Only portions of this wall were left in place. Several large fragments of African-colonoware were used as chinking between these foundation stones.

A single row of dry-laid cut sandstone, three-courses in height, is all that remains of the north foundation wall. The stones used in both the east and north walls were apparently cut from the outcrop into which the structure was set. The foundation walls and the cellar are built directly on bedrock. Artifacts recovered from the foundation walls, builders trench, and strata associated with this eighteenth-century structure have suggested a mean date of construction of circa 1733. The suggested date of abandonment and demolition is sometime before circa 1820.

The latter date corresponds with the construction date of the main house of Portici plantation, site 44PW348. Structure 2 was no longer needed as a dwelling house for the Ball family. It was apparently stripped, with all useful construction materials salvaged for the erection of Structure 1 at site 44PW335. This less permanent structure is located approximately 40 feet north of Structure 2.

Removing and recycling construction materials is not unusual. The cut sandstone was more than likely used to construct the chimney footings and foundation piers of Structure 1. Nails and glass panes were probably incorporated into the shell of the building. Some new materials were undoubtedly also used along with the salvage materials during the initial construction. Contemporary materials were probably also used to maintain the cabin during its approximate forty-year occupation.

This dwelling, Structure 1, was apparently a nineteenth-century slave quarter associated with the Portici plantation complex. Its mean date of construction is between circa 1820 and circa 1823. The earlier date was calculated from analysis of the nails associated with this structure. The second date was obtained the ceramic assemblage. Both dates were generated by applying the South mean date formula to the respective assemblages (see Chapter 6;Appendix J).

A single exterior chimney set on a sandstone footing runs along the east wall of Structure 1. The chimney footing measures approximately four-by-eight feet. The cut stone fragments are set with clay mortar. Clay was the first material used as mortar. It was often used even in areas where lime mortar was available because of its low cost (McKee 1980:61). Archeological evidence suggests this dwelling was a frame structure set on piers, which was probably built of sandstone. The stratigraphy implies exterior dimensions measuring approximately 12-by-12 feet. These dimensions correspond to most tidewater slave cabins. These clapboard cabins, however, seldom had the elevated wood floors and glazed windows found at Structure 1 (Otto 1984:42-43).

Methods of refuse disposal provide yet another statement of man's changing view of the world. Prior to the advent and practice of the Georgian philosophy, trash was merely thrown out, usually out the nearest door or window. This was not as awful as it sounds because there were, at least in most rural areas, foraging pigs and chickens to eat the organic debris. The residual trash eventually succumbed to pedestrian traffic. These bits of refuse were gradually covered by soil and became part of the archeological record.

Once the orderly nature of the Georgian universe took over, structured refuse disposal became an integral part of life. This philosophy had appeared, at least in theory and in urban areas, by the mid-eighteenth century. Just when the actual practice was adopted depended upon the individuals' geographic location and personal preference. Georgian trash was consigned to pits which were purposefully dug to receive all manner of household debris. Often these pits had originally been dug for some other purpose such as a privy or a cellar and were later converted to trash receptacles (Deetz 1977:125-126). This re-use of pits appears to be the case at Pohoke.

The robbed cellar hole of the eighteenth-century dwelling house was effectively used as a refuse pit by the nineteenth-century residents nearby. Much of the trash generated by the occupants of Structure 1 was scattered randomly about the dwelling, but some of it was disposed of in the nearby cellar hole. The long-term occupation of this site in pre-Georgian times has contributed its share of randomly scattered trash, as well.

A man's home, his house, and his plantation, are often an extension of himself (Isaac 1982:71). Architecture can provide the perfect medium through which to display personal wealth and affluence. It was the means Spencer Ball chose to exhibit his agricultural and economic success in the Piedmont when he built a new home in the 1820s. The Ball family moved from the small, tenant-built, frame cottage to a dwelling which reflected their position on a larger, grandeur, and more fashionable scale.

Portici, the house Spencer Ball constructed, was classically Georgian in style (Figure 24). This structure followed the Georgian tenets of bilateral symmetry in facade and floorplan. A central hall separated two sets of two rooms. The formal east front exhibited bilateral balance with a central doorway flanked by paired, evenly spaced windows. A central, second-floor window was placed directly over the door. Each window had 12 panes and sliding sashes.

The Georgian style of architecture created a different division of living space. It kept pace with society's move away from the old communal focus to a more individualized approach. The residents of the house could now isolate themselves not only from the outside world, but from each other (Deetz 1977:115). The Georgian houseplan offered neatness and order, two objectives which were highly prized by this new world view.

This new order of architecture found its roots in the Renaissance. Inigo Jones is credited with its introduction to seventeenth-century England (Wright et.al. 1975:75). The Colonies were first acquainted with it by the end of that century. It was not until the late eighteenth century, however, that the imposed order of the Georgian-style prevailed among the urban sophisticates in America. By the early nineteenth century, vernacular Georgian-style houses were commonly found throughout the Virginia Piedmont. As expanding commerce and transportation networks spread westward, so too, did the most current architectural styles.

The Georgian-style moved very easily into the vernacular tradition. Plantations had become very carefully organized, isolated communities. The Georgian house offered the planter a means of structuring his home, which was after all, the center of his self-made community. Social dogma soon developed which quickly influenced the use of these newly created interior spaces.

The academic architectural model which best suited the social patterns developed in Virginia was the four-room, central-passage, Georgian houseplan. The most essential element, or room, in these plans was the hall. This was a formal, public room, often set off from direct access to the other rooms in the house. It was the center of the formal, social side of the planter and his family (Upton 1972:108).

The second essential element was the dining room. This semi-public space allowed the mingling of inside and outside. It was directly accessible from the formal passage and often from a private chamber. The dining room usually had an exterior door facing the detached kitchen. It provided a connection between

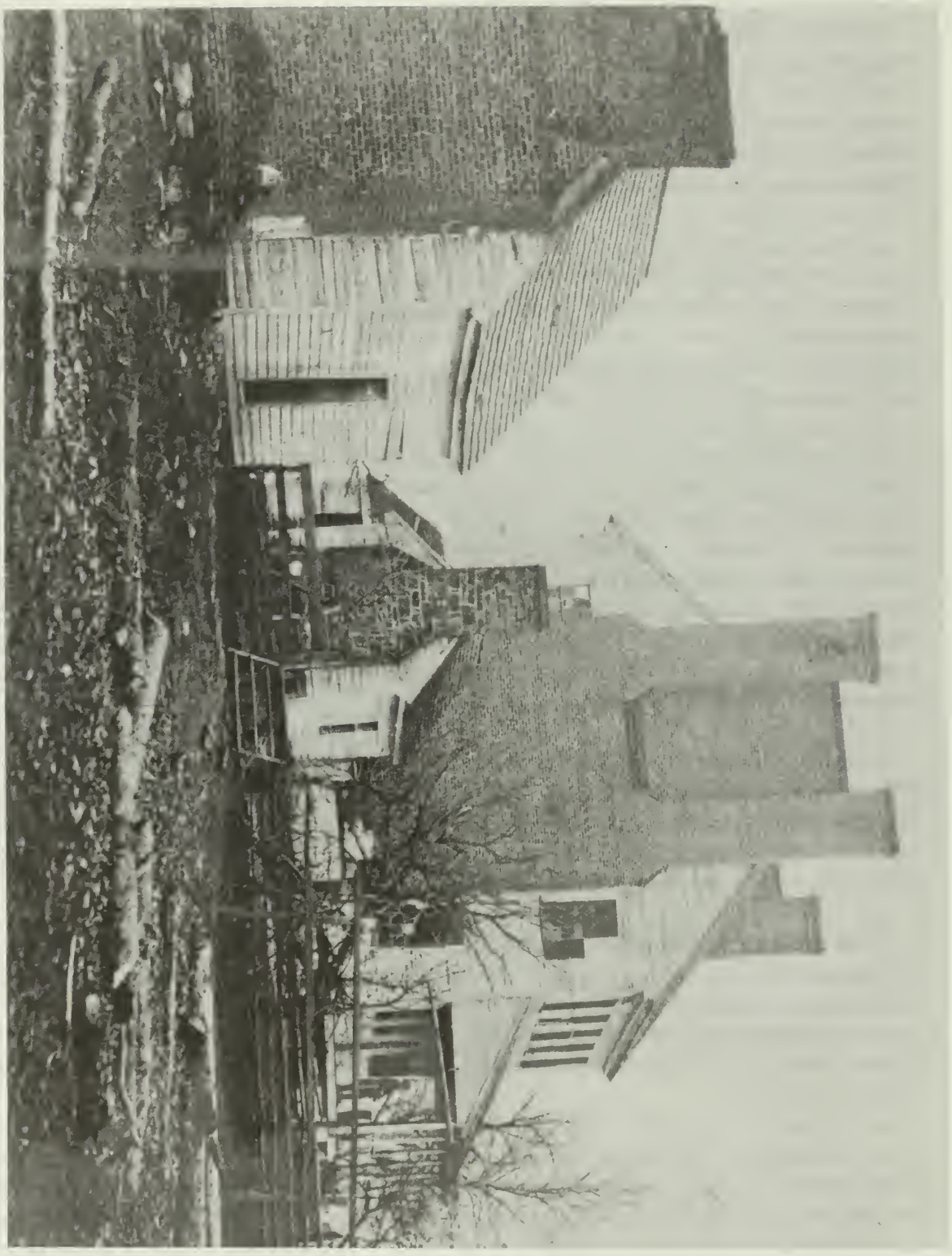


Figure 24 Portici, the classically Georgian vernacular house built by Spencer Ball in the 1820s. View to the north (Manassas National Battlefield Park).

the main house and the basic services of the plantation complex. The dining room generally served as the center of the house for the family members.

The most private rooms on the first floor were the chambers. There were endless variations employed by the individual planters and their builders based upon specific needs. Rooms were arranged in a manner which suited the owner and the company he kept.

The main house at Portici was a square, frame structure constructed primarily of chestnut. The timber used for the exterior clapboard on the house was not identifiable. The exterior dimensions of the quarried Triassic sandstone foundation measure 37 feet (east-west)-by-36.9 feet (north-south). The foundation is approximately 26 inches wide. Lime mortar was used to set the main structural foundation stones. Clay mortar was used for the interior joist support piers within the structure.

A four-room, central-passage floorplan is suggested by Portici's skeletal remains. The rooms of the first floor are slightly asymmetrical. The dimensions of the two southern rooms are approximately 16-by-16 feet. Their northern counterparts measure approximately 12-by-16 feet. The southern rooms were probably used in a more formal capacity. Perhaps serving as the hall and dining room. The two smaller rooms were most likely the more private or semi-private chambers for family members (Figures 25 and 28).

Massive, exterior-end, parapetted, brick chimneys rose along the north and south walls of the house. The chimneys were patterned in American Common Bond. Parapetted chimney construction is fairly common in nineteenth century Piedmont Virginia. Most examples of this type of chimney construction in Charlottesville and Prince William County, Virginia, were erected circa 1825 to circa 1830 (John Wells 1987: personal communication). The hand-pressed brick used to build the chimneys were probably manufactured at the plantation.

A full English cellar underlies the house. The cellar is divided into four rooms mirroring the floorplan of the stories above. These cellar rooms are formed by jerry-built, single-course brick and timber walls which span the interior sandstone support piers within the house foundation walls. The sandstone walls within the cellar are pargeted. The floor is packed clay overlying the bedrock upon which the house is constructed. Over the 40-year occupation, an accumulation of trash and domestic debris raised the floor approximately eight inches. Additional clay was apparently brought in to resurface flooded areas and provide a fresh, dry floor.

Figure 25 Archeological excavation at Portici revealed a slightly asymmetrical, four-room, central-passage floor plan in the main house (center). Subsequent additions and a small dependency (bottom) were also exposed.

At least one room in the cellar served as a residence. The northeast corner was jerry-built to form a room. A small hearth with a brick apron and make-shift iron grate were set into the northeast stack of the north chimney footing (Figure 26). A midden accumulated during the approximate 40-year occupation of the quarters. The midden, which is interspersed with lens of clean clay fill, chronicles a portion of the diet and activities of the residents. It is speculated the room was occupied by domestic slaves who were often quartered in the cellar of the planter's house.

The cellar was accessed by a bulkhead entrance between the north chimney footings. The parapetting of this particular chimney served a functional role. The brick span supports the massive chimney stacks which have a staircase descending between the two footings. The cellar entrance is approximately seven feet wide. There are nine risers in the staircase. The steps are cut into the grade and set with scrap brick fragments (Figure 27). Postholes flank the portion of the entrance extending beyond the exterior foundation wall and chimney footings. A small wooden structure resembling a pent-closet probably enclosed the exposed portion of this entrance. The width of the doorway and the shallow steps would prove ideal for rolling hogshead casks and other bulk supplies into the cellar for storage.

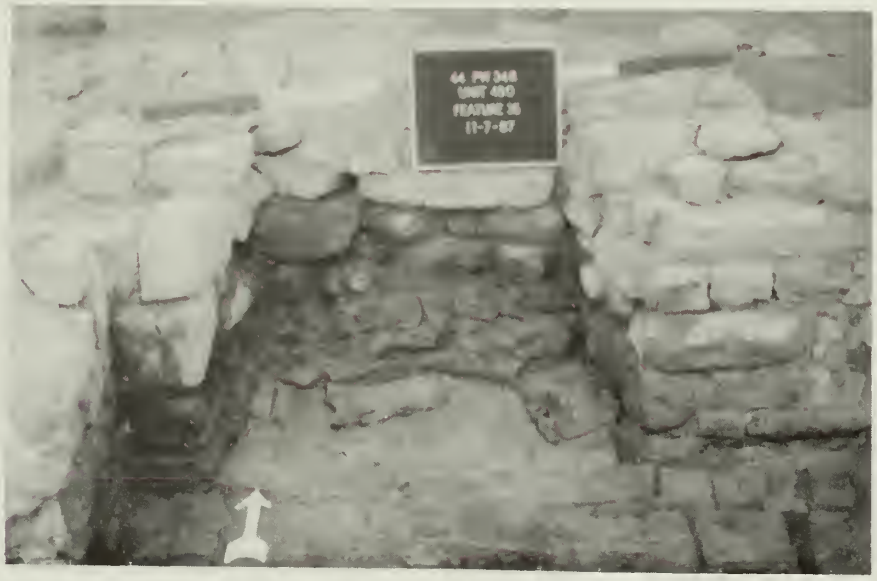


Figure 26 Portici's cellar slave quarters hearth with brick apron and make-shift iron grate.

Figure 27 Bulkhead entrance accesses Portici's cellar through the north chimney footings of the mansion house.

The house was expanded in circa 1836, when a small addition with exterior dimension of approximately 8 feet (east-west)-by-12 feet (north-south) was added to the exterior northwest corner of the main house (see Figure 25, Figure 28). Fieldstones were laid with both lime and clay mortars. Gaps in the foundation walls were filled with occasional pieces of scrap brick. The walls of the "North Addition" abut the exterior foundation wall of the house and are not integrated into its construction. The function of this addition is unknown. It may have served as a side entrance to the main house.

It is not known whether this addition was designed by Spencer Ball prior to his death in 1832. It was, however, executed while the plantation was under the direction of his wife Betty, assisted by their son, Alfred.

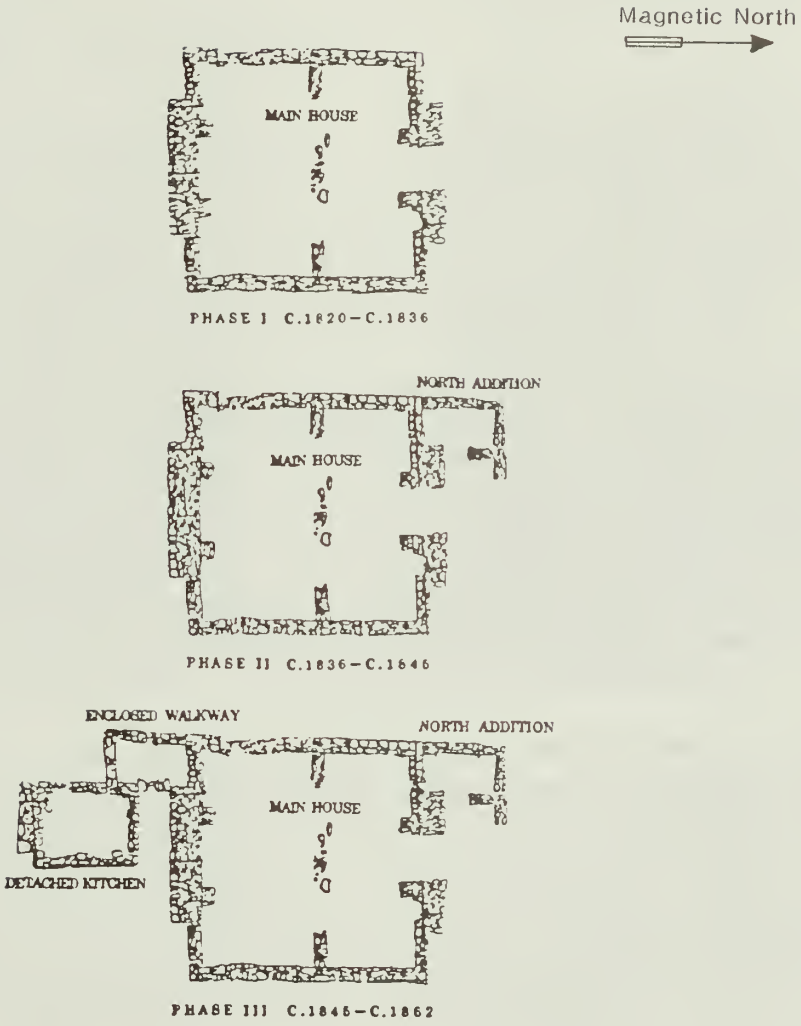
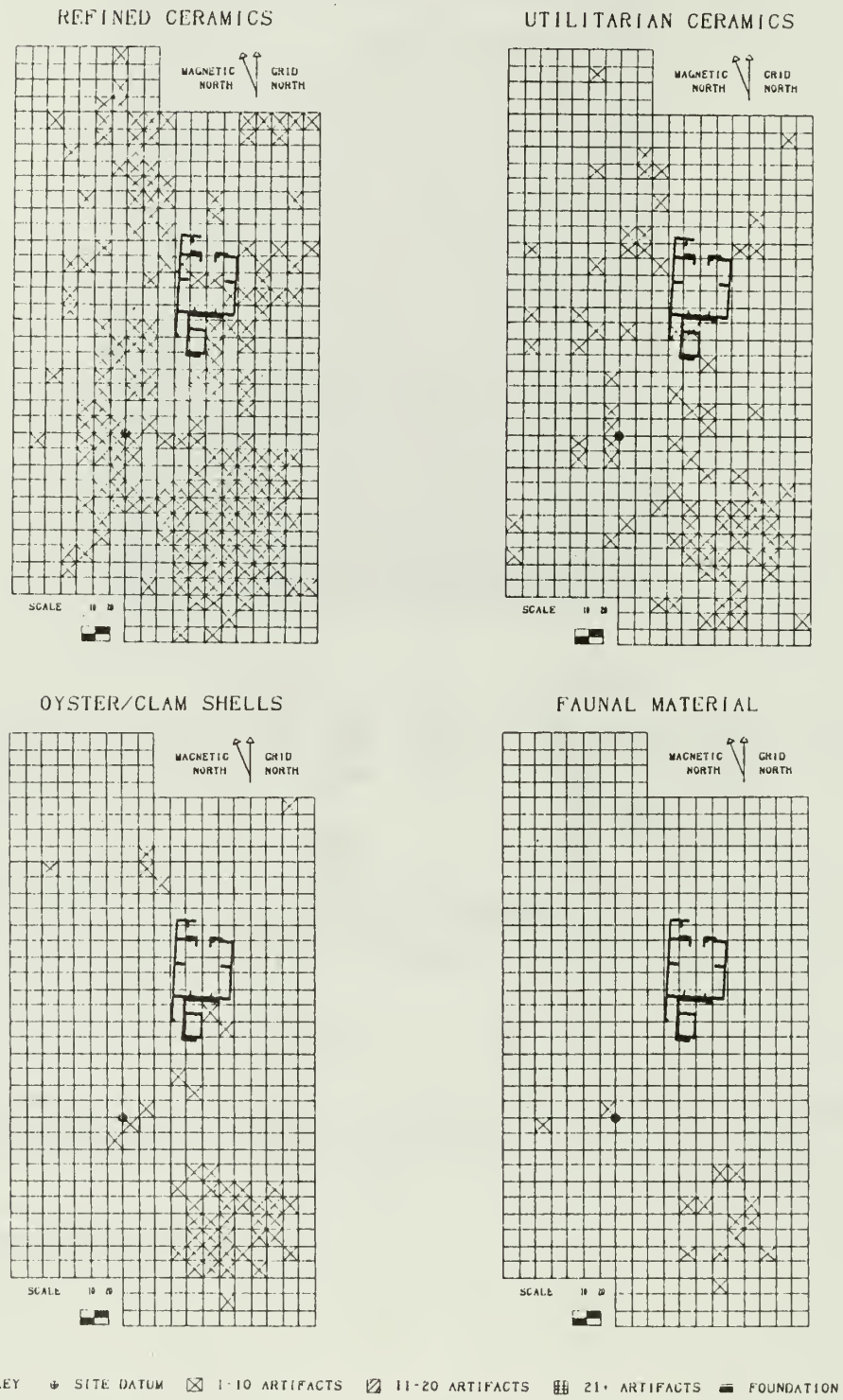


Figure 28 Construction sequence of the main house, additions, and south dependency at Portici. The mean dates of nails recovered during archeological excavations were calculated to establish this architectural chronology (see Chapter 9 and Appendix J).

Figure 29 Surface artifact distribution maps at Portici. The location of the plantation's summer kitchen is suggested by artifact clusters in the southeastern portion of each map (Hal Bonnette).



Portici plantation experienced a period of major expansion under the management of Alfred Ball from 1842 through 1853. Alfred also purchased several additional plantations and large farms in the three surrounding counties. Many of these properties were leased to tenants. In keeping with this pattern of growth, Portici's main house was expanded as well.

A small dependency was built approximately three feet south of the house in circa 1845 (see Figure 25, Figure 28). The exterior dimensions of the sandstone foundation are 12 feet (east-west)-by-16 feet (north-south). A massive sandstone chimney footing spans ten feet of the south wall. Lime mortar was used to set the foundation stones. Large fragments of pearlware and whiteware plates were used as chinking between the stones of the chimney footing.

This one-room frame structure was accessed from the northwest corner. There was a single glazed and shuttered window placed in the center of the east elevation. The peaked roof suggests the presence of a loft, which may have housed either the cook, supplies, or both. The placement of this structure, the magnitude of the stone chimney, and the variety of associated artifacts suggest it served as a detached winter kitchen. The surface collection conducted at Portici indicates that the area of food preparation was located approximately 50 feet south of the main house. Concentrations of ceramics and faunal material in this area may represent the location of the summer kitchen (see Figure 29).

Detached kitchens are typically located at least 20 feet from the main dwelling house. Apart from the Georgian obsession with specialized spaces, removing the threat of fire along with the smoke and odors associated with cooking hearths from the main house was a major consideration (Leach 1980:23). The placement of Portici's detached kitchen three feet from the south wall of the house is somewhat unusual, and dangerous. The placement of this structure more closely resembles the attached kitchens found among urban dwellings of the period, where land was at a premium (Leach 1980:31-32).

Given this dependency's late date of construction, the area used as the cellar slave quarters may have also served the house as a winter kitchen, and was possibly an auxiliary kitchen during the earlier years (Figure 20). The outbuilding previously suggested as the area of food preparation and possible summer kitchen has not been excavated.

An enclosed frame walkway was built in circa 1845, connecting the south dependency/detached kitchen to the southwest corner of the main house (Figure 25, Figure 28). This enclosed walkway provided direct access to what was probably the dining room of the main house. The hyphen/walkway mirrors the

construction, size, and placement of the "North Addition" returning the house to a symmetrical floorplan. It also provided an entrance to the detached kitchen which was not visible from the formal east entrance of the house.

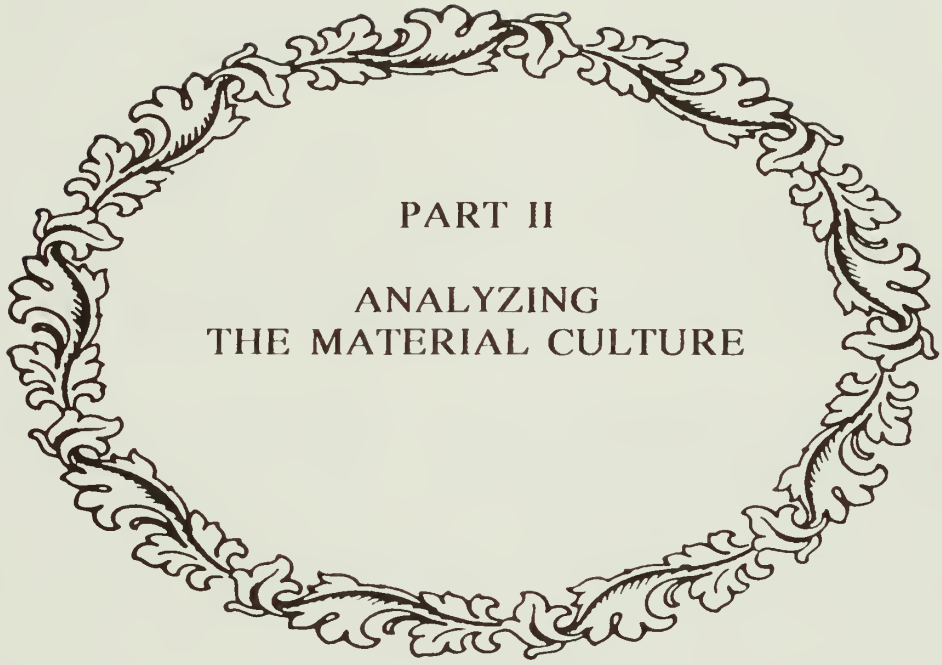
These structures were part of a very complex landscape. Each structure played a part in the "Georgian" concept of organized spaces. The definition of exterior spaces was as compulsively exacting as the organization of interior living spaces (Upton 1982102).

The Georgian planters established small communities through the organization of their plantations. Plantation society reflected the social structures and hierarchy maintained by society in general. The plantations themselves were organized in a manner to facilitate the large-scale production of staple crops (Lewis 1985:60). The placement of the buildings was carefully ordered. The buildings serving the domestic needs of the main house were generally placed closest to that structure. Slave quarters were erected near the assigned work areas of the occupants. These quarters were often great distances from the planters house, particularly when sheltering field slaves (Upton 1982:102).

Portici plantation appears to conform to this hierarchical patterning. The main house and the structures serving it are aligned in a linear pattern featuring two geometric clusters (Figure 30). The first cluster consists of the main house and the five dependencies which directly serviced it. The second cluster is located approximately 600 feet northeast of the domestic complex. Site 44PW336 was apparently associated primarily with agricultural activities. An agricultural and/or livestock complex is depicted near this area on a circa 1861 map. Archeological evidence suggests an area of architectural impermanence which may have functioned as a dairy and/or slave quarter (Appendix E).

A suspected field slave quarter, site 44PW337, anchors the north end of this linear arrangement near Bull Run, approximately one-half mile to the northeast. An additional field slave quarter, Pohoke's Structure 1, site 44PW335, is located near the family cemetery. This structure is approximately 750 feet northwest of the Portici domestic complex. A third probable slave quarter was found approximately 700 feet west of the main house along Holkum's Branch. This structure was apparently incorporated into the Confederate encampment, site 44PW455, established throughout this wooded area during the winter of 1861 - 1862.

Figure 30 Hierarchical patterning of Portici plantation in 1861 appears in a linear format with two primary geometric clusters (sites 44PW348 and 44PW336). Suspected slave quarters anchor the north and south ends of the line (sites 44PW337 and 44PW455). A third slave quarter is located northwest of the domestic complex near the site of the plantation's first dwelling house (site 44PW335) and the family cemetery (site 44PW334) (Manassas National Battlefield Park).



PART II

ANALYZING THE MATERIAL CULTURE

5 THE ANALYTICAL METHODOLOGY

The analysis of cultural material is an essential task in the interpretation of an archeological site. Recovering data without completing a systematic analysis is of little merit. Many archeological reports assume their readers are well versed in all aspects of history and material culture. Some employ a compendius approach, compiling and listing the artifacts recovered. Others proclaim mysteriously determined conclusions, providing no pertinent background for the uninitiated. This report is written for both the public and professionals. It is intended to be a comprehensive archeological and historical assessment of National Register eligibility; an intensive study of a Northern Virginia Piedmont plantation; and ultimately, an educational tool for cultural resource managers.

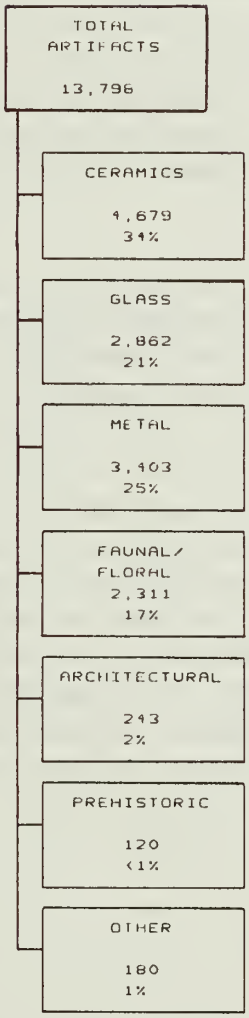
Very few of the United States National Parks, or private organizations for that matter, boast the convenience of a staff archeologist, or other specialists, trained to interpret material culture. Consequently, the fundamental knowledge concerning the historic, economic, and social implications of objects is not always accessible to cultural resource managers. These three elements are critical to adequately interpret material culture. In response, this report attempts to provide often unavailable interpretive information in the "brief history" segments of the chapters forming Part II. These segments strive to include only those types of artifacts recovered at sites 44PW335, Pohoke and 44PW348, Portici. In some instances, however, a somewhat more comprehensive history is necessary to adequately depict the evolution of the items discussed. Many artifacts, and their implications, cannot be fully understood until they are seen as part of the whole.

Through the application of contemporary research methods, modern knowledge, and biases, the past can often become the mere subject of our own devices and illusions. We build theories as to how and why things happened and what they meant. While these theories are convincing to us, and may even be true, those who lived through the events concerned might not recognize our interpretation of them. As inhabitants of the twentieth century, it is impossible to be entirely accurate in interpreting the daily lives of another century. The conclusions of this and other such studies, therefore, can be misleading if they are accepted as the whole truth. These conclusions are really fragments of the truth gleaned from the material culture left by the residents of another time.

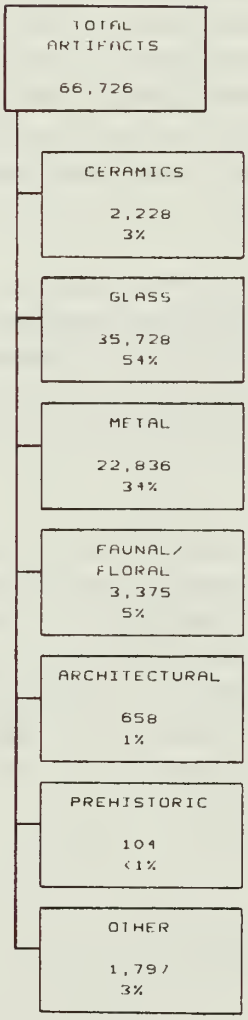
The artifacts recovered from Pohoke and Portici were initially classified by material (Table 5.1). These classes include ceramics, glass, metal, faunal, floral, and prehistoric. A single, functional category of architectural materials was also used for this preliminary sort. A category termed "other" was created to house miscellaneous materials such as coal, slag, leather, land snails, and plastic. Objects within each of the artifact classes were then carefully examined for various class-specific attributes to determine date ranges, function, and economic status. These attributes are discussed and described in the following chapters.

This report is neither simply an economic analysis, nor a social study, nor a history of material goods; it is an attempt to understand how these people lived. It also allows the reader an opportunity to formulate their own conclusions, while learning how the authors derived theirs.

TABLE 5.1 Pohoke, Site 44PW335



Portici, Site 44PW348



H. Bonnette

M. Richardson

6 CERAMICS

The analysis of ceramics provides crucial historical and cultural information. Ceramic fragments typically form a major portion of the archeological record generated by most societies (Deetz 1977:46). This is indeed the case at Pohoke where ceramics constitute 34% of the artifact assemblage. Portici, however, does not conform to this general, predictive model. The plantations' role in the First Battle at Manassas, disrupted the normal deposition of domestic cultural materials. The Lewises evacuation of Portici on the eve of the Battle, along with all their transportable possessions, directly affected the sites' archeological record. Ceramics recovered from the excavations at Portici, represent a mere three percent of the total artifact assemblage.

Each ceramic fragment can be identified as to the type of ware (ware refers to the physical characteristics of a ceramic type), the original form and function of the vessel, and the method, place and date of manufacture. This latter attribute is particularly important for it ascribes a date range to the archeological site or feature with which it is associated.

Ceramics may also reveal something of their owners. By observing the changes in ceramic vessel forms and decorations over time, corresponding changes in aesthetic tastes, methods of food preparation, economic status, and even table etiquette are disclosed. This information may be used to augment existing documentation of site inhabitants. It also provides a potential means for determining the socio-economic status of occupants. This is particularly important when there is little, or no, documentation pertaining to the site. While no single artifact class serves as a definite indicator of status, ceramics may provide a reliable, generalized, picture of status, particularly in conjunction with table glass.

A Brief History

The primary function of ceramics in early colonial America was very closely related to the preparation, storage, and consumption of food (Deetz 1977:50). While individuals required the same basic diet, their economic and social position dictated the quality and quantity of ceramics used to prepare the food.

During the initial period of English colonization, circa 1620 to circa 1660, coarse, utilitarian ceramics primarily associated with dairying were used (Deetz 1972:25). Ceramics played a very small role in the preparation and consumption

of food during this time. Cooking was done in metal pots and food served in communal wooden or metal trenchers. This period is typified by an overall communal attitude. It reflects in part the group struggle for survival in a harsh environment as well as the Medieval heritage of these first immigrants. There was a general paucity of personal items. Only those objects essential to daily life were kept (Deetz 1977).

As the communal approach to life gradually changed, the ceramics reflected the more structured perception of reality inherent in the emerging Georgian world-views. This new ideology expounded the belief that society should be carefully ordered and that all facets of life, including material goods, should reflect this structured existence. The earlier communal focus had been replaced by individualism. The "Georgian mind-set" peaked between circa 1760 and 1835 (Deetz 1972:30).

The ceramics of the period from circa 1660 to circa 1760 also reflect the slowly changing agricultural economy. No longer simply struggling to survive, the colonists had achieved a stable agricultural environment by 1700. While the colonists still imported and produced coarse utilitarian wares, there was a dramatic increase in the importation of refined ceramics. This increase was in part due to advances in European ceramic technology, but it also reflected the improved quality of life in America.

This improved lifestyle was primarily enjoyed by a small group of merchant-planters. These men recognized the value of land and quickly acquired vast tracts throughout the colonies. This new aristocracy was built upon a tobacco economy, influenced by the mind-set of the landed-gentry. Colonial America therefore, hastened to follow England in the adoption of the Georgian ideology (Greene and Pole 1984).

Ceramics of the eighteenth century reflect the ordered, structured society which produced them. There is a noticeable increase in the number and variety of vessels. This stems from the idea that each individual should be served on his own set of dishes and plates. The ordered universe in which Georgian society sought to live directly influenced the style and type of ceramics produced. As dining became more elaborate, ceramic forms diversified. They were now designed to fill specific status and social requirements.

By the mid-nineteenth century, there was a general balance attained between the quantities of imported European ceramics and the number of ceramics manufactured in North America. While the vast majority of the finer tablewares were still imported, America filled her own need for utilitarian wares. Utilitarian

stonewares and earthenwares were produced and marketed in most areas along the Atlantic coast. Deetz has proposed that in New England, domestically produced ceramics would decrease in relative quantity (Deetz 1972:33). In the nineteenth-century Virginia Piedmont, however, this is not the case. It was much easier and more cost efficient to purchase durable utilitarian wares from local sources than to seek imported European vessels.

The last half of the nineteenth century was characterized by an increase in the quantity of ceramic sets. These sets included an incredible variety of vessel forms. This in part, accommodated the plethora of socially acceptable rules governing dining and entertaining in general. The volumes of etiquette had begun accumulating during the Georgian era. Ceramics kept pace with society and reflected the increasingly complicated social standards which governed lifestyles as the century progressed. The clutter of material goods associated with Victoriana epitomizes this era from circa 1819 through circa 1901.

Ceramics are traditionally grouped by vessel forms as either holloware or flatware. Hollowares include those vessels with some degree of depth usually exhibiting upward curving rims and traditionally designed to contain viscous substances. Bowls, cups, teapots, mugs, jars, tureens, chamber pots, and vases are all forms of holloware. Flatwares are shallow vessels which are more or less flat. The rim is generally parallel to the base. Examples of flatwares include plates, platters, and saucers.

Vessel function provides a means of categorizing ceramics into utilitarian wares or tablewares. Utilitarian wares were used to prepare, store or preserve the food being served. The coarser earthenwares and stonewares generally fall into this category. Tablewares were used in the dining room to serve and contain the prepared foods. Refined earthenwares and stonewares or porcelains were most often used in this latter capacity.

Ceramics are traditionally, and most easily, divided into three primary types based upon their physical properties and the temperatures required for the clays to fuse. These categories are earthenware, including both coarse and refined body types, stoneware, and porcelain.

All the varieties of ceramic types and forms have waxed and waned in popularity and availability through time. Ultimately, ceramics are not mutually exclusive. They tend to overlap and influence each other in style, function, popular taste, and periods of use.

Earthenware

Coarse earthenware is basically a low-fired ceramic. This crude, porous, utilitarian pottery is fired at temperatures of 1000 to 1100 degrees Celsius in a ceramic kiln (Greer 1981:14). The surface of these vessels is often covered with a leadglaze rendering it less permeable to liquids. Some vessels were left unglazed, in either case, decoration was kept to a minimum. These coarse wares were used primarily in the kitchen and the dairy for food preparation. They were the least expensive ceramics available and were often locally produced. Potters in Virginia, Pennsylvania, New Jersey, New York, New England, and other states made coarse earthenwares. These wares are characterized by their imitation of European decorated earthenwares.

The North American-made earthenwares were produced in virtually all the states on the Atlantic Coast. Unlike the European ceramics, the locally produced ceramics generally circulated within a small radius around the production center. Alexandria, Virginia, and the Shenandoah Valley were among the primary suppliers for the Piedmont area.

For a short time during the late eighteenth century Alexandria potter Henry Piercy, manufactured a utilitarian red earthenware. Piercy's leadglazed, red-bodied ware was distinctively decorated with white slip. Dairywares dominated the forms produced. Piercyware compared favorably with similar products manufactured concurrently in Philadelphia, Pennsylvania (Watkins n.d.:11). Piercy filled the local demand for inexpensive utilitarian wares between circa 1792 through circa 1799 (Watkins n.d.:13).

During the eighteenth century, Palatinate Germans settled in Pennsylvania bringing with them the Rhineland potting tradition. Kilns were established in Pennsylvania, Maryland, the Shenandoah Valley, and the Carolinas. Perhaps the most influential of these immigrant potters was the Bell family. Patriarch Peter Bell created earthenwares comparable to the wares exported from England. Bell's red-bodied earthenwares were leadglazed. The wares were often slip-decorated with designs imitating English Metropolitan and Essex wares. These well-executed imitations make it virtually impossible to distinguish the European from the American-made leadglazed earthenwares.

In the earliest days of colonization, before the local potters established their trade, coarse earthenwares were imported from Devonshire, Somerset, and Wales. Once the immigrants were firmly entrenched in the New World, locally made coarse wares became the rule rather than the exception. The most common vessel forms, whether the earthenware was imported or indigenous, are dishes, bowls, milk pans, and large plates.

An even more localized market was satisfied by the pottery manufactured in open-air kilns by African-American slaves and Native Americans. This form of coarse earthenware is referred to as colonoware (see Chapter 16).

Refined earthenwares are low-fired in ceramic kilns at temperatures between 1000 to 1200 degrees Celsius (Greer 1981:14). These fine-grained, delicate ceramics usually exhibit some form of decoration. Refined earthenwares were most often designed for use at the tea or dinner table or as pure ornamentation. The primary difference between refined earthenwares and other earthenwares is that the paste was "finer," more plastic, and allowed more fragile vessel forms. The varieties of ceramics belonging to this category include delftware, creamware, pearlware, whiteware, and refined redwares.

The overall evolution and development of ceramics, and particularly of refined earthenwares, during the seventeenth and eighteenth centuries is primarily a result of Europe's attempt to satisfy its desire for porcelain. The manufacture of porcelain was virtually a Chinese monopoly at this time. Europe aspired to produce its own form of "china ware" but the manufacturing secrets were carefully guarded in the Orient. To sate the Western Worlds demand for this luxurious commodity, affordable equivalents were developed and marketed.

One of the first developments in this quest was tin-glazed earthenware. It was manufactured throughout most of Western Europe in the seventeenth and eighteenth centuries. In the Netherlands and England it was referred to as delft, in France it was faience, and in Spain, Italy, and Portugal it was majolica (Miller and Stone 1970:26). Whatever the regional name, however, it referred to an earthenware covered with an opaque white glaze. The glaze was produced by adding tin-oxide to ordinary leadglaze. The glaze created a smooth, matte surface which was ideal for hand-painted decorations. The white glaze with or without ornamentation exhibited a reasonable and affordable resemblance to Chinese porcelain.

At first, delftware attempted to imitate the popular Chinese vessel forms, particularly the teawares. Unfortunately, the thick tinglaze had the disagreeable tendency to peel and chip off the vessel after extended contact with the mouth. By changing the type of vessel forms produced to plates, bowls, ointment and pharmaceutical pots or jars, manufacturers of delftware managed to retain a market for the ware well into the nineteenth century (Noel Hume 1969:111).

Most of the delftware found in colonial Virginia was imported from England. The earliest English delftware of the mid-seventeenth century was elaborately decorated employing intricate patterns in a variety of colors.

Chinoiserie motifs, which are designs incorporating Chinese themes into their patterns, were extremely popular (Noel Hume 1984:109). As delftware gained in popularity, the amount of decoration often the quality seem to have decreased proportionately. To maintain the low price while keeping pace with the increasing demand, time and labor were kept to a minimum.

Meanwhile, England's potters continued their search for an elegant, refined ware to compete with Oriental porcelains. In the early eighteenth century, Thomas Whieldon and Thomas Astbury began working with a pale yellow clay known as ball clay. When this clay was fired at a low temperature it produced a cream-colored earthenware which could be covered with a clear leadglaze after the initial firing. Ball clay is a very plastic secondary or sedimentary clay. Unlike most other secondary clays it has relatively little iron oxide and therefore produces a cream or off-white colored clay body after kiln firing.

The main deposits of ball clay in England are located in Devon and Dorset. There are two theories addressing the evolution of the term "ball clay." In Devon it is speculated the term arose from the 35 pound ball-shaped pieces the clay was formed in to facilitate handling and shipping. In Dorset the derivation of the term is thought to be a contraction of tubal. This is the special adze-like tool used to dig the clay (Charles 1983:22).

The new cream-colored earthenware was an overnight success and by 1750 was being produced in every conceivable vessel form. Whieldon produced a very popular variety of teaware in which the cream earthenware body was colored with purple, blue, brown, yellow, green, red, and gray pigment and then covered with a clear leadglaze (Noel Hume 1982:124-125). This mottled, polychrome ware was called Whieldon clouded ware and it remained quite popular until circa 1775 (South 1977:210).

Thomas Whieldon formed a partnership with Josiah Wedgwood during the mid-eighteenth century. During his partnership with Whieldon, Wedgwood also produced decorative tableware of creamware molded to resemble fruits and vegetables. This "Cauliflower ware" was then covered with realistic color glazes. Forms resembling melons and pineapples as well as the title vegetable were made between circa 1754 and circa 1759 (Hughes and Hughes 1968:37-38; Charles 1983:53-54)). By 1762, Wedgwood, no longer in partnership with Whieldon, had further refined Whieldon's cream-colored earthenware. Wedgwood's version featured an off-white colored clay body with a clear to slightly yellow leadglaze. The pottery soon became known as "Queen's ware" owing to the patronage of Queen Charlotte, consort of King George III (Noel Hume 1982:125). Queen's ware subsequently came to be known as creamware.

A variety of molded patterns were developed by Wedgwood to decorate creamware. The "Royal" pattern first appeared in circa 1763, "feather-edged" in circa 1765, and a "shell-edged" pattern in circa 1770 (Noel Hume 1969:126).

The inherent advantages of the applied leadglaze used on creamware soon brought about a new penchant for underglaze decoration. Often the molded decorations were combined with under or overglaze embellishments. Underglaze decorations were applied to the ceramic vessel before glazing and the final firing. Since the decoration was beneath the glaze it was better protected and more durable than those applied on to or over the glaze. The color choice of the underglaze decorations was limited to those which could withstand the firing temperature of the glaze.

The patterns were applied by hand-painting and by a technique known as transfer printing. The latter is an indirect method of applying a painted decoration and was first used sometime after 1750 (Hughes and Hughes 1968:148). The designs were copied from lithographs on a sheet of tissue paper. The design was then transferred to the surface of the ceramic vessel. The earliest transfer prints were simple designs in various shades of black, red, brown and purple, which were applied to the glazed surface of a vessel (Majewski and O'Brien 1987:141). The object was then refired at a low temperature to fix the transfer print. Transfer printed patterns on creamware were especially popular from circa 1765 to circa 1810 in both England and America (Hughes and Hughes 1968:156).

The fine creamware body also made possible pierced decorations. This technique featured patterns which are cut through the partially dried clay body of a vessel producing a tracery-like effect. This style of decoration was popular in the late eighteenth through the early nineteenth centuries (Charles 1983:190).

As the popularity of creamware declined, Wedgwood again revolutionized the ceramic industry with the introduction of pearlware in 1779. "Pearl White" was created as an alternative to the more yellow creamware. Pearlware was whiter than creamware. To accomplish this the proportions of flint and kaolin in the clay were increased. A trace of cobalt oxide was added to the clear leadglaze which produced an overall blue cast. This slight tint produced an effect very similar to the color of porcelain. Apparently this was no accident, for constantly rising tariffs on Chinese porcelains had created a void in the ceramic market (Haggar 1972:185). "China Glaze" or "Pearl China," as pearlware was then known, was the potter's attempt to fill that void (Godden 1964; Noel Hume 1969).

By the early nineteenth century, pearlware was the most popular ceramic in England and America. This fine, white-pasted ware was made in every

conceivable form. The types of decorations used to embellish it included hand-painted, transfer-printed, and press-molded designs.

Transfer-printing on pearlware, and indeed on all the other earthenwares and semi-vitrified wares, was extremely popular. Chinoiserie motifs were the most widely used designs. Manufacturers opted to create oriental-looking vessels through the underglaze decoration rather than attempting to duplicate the porcelain ceramic body. The Oriental theme was especially popular before circa 1820 (Majewski and O'Brien 1987:132).

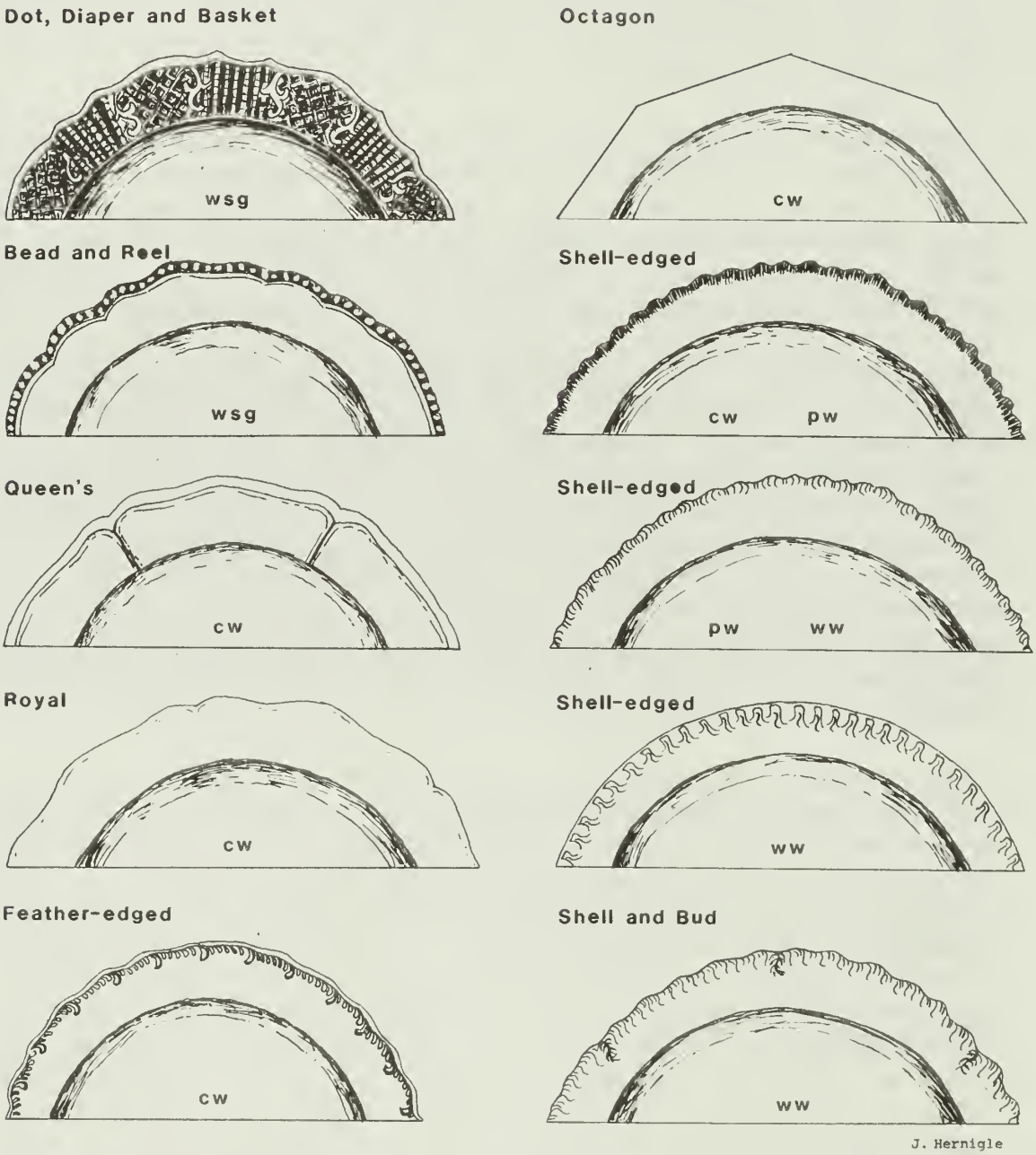
Following the decline of Chinese motifs, themes which reflected the tastes of the new Romantic movement were all the rage. Classical scenes and romantic pastoral landscapes were borrowed from travel books, paintings, and engravings. These images were popular in the 1820s and 1830s. During the early nineteenth century, vessels with pictures of American scenes, architecture and patriotic figures were created for the American market.(Hughes and Hughes 1968)

Blue was the first color used in underglaze printing, primarily because the cobalt oxides were the easiest to control, especially when firing the wares at a higher temperature. As the knowledge of mixing and applying colors, and of firing techniques progressed, additional colors -- green, yellow, black, and red -- were incorporated into the ceramic palette by the late 1820s (Majewski and O'Brien 1987:139). By this time, although blue decorated ceramics had achieved a tremendous success, the English and American markets had been glutted. The appearance of vessels decorated in shades of brown, black, purple, red, green, and pastel blue in the 1830s was welcomed indeed. These colors continued to be used over the next 20 to 30 years until production ceased (Majewski and O'Brien 1987:145).

Of all the molded-edge decorations produced, the shell-edge pattern is the one most often found adorning pearlware vessels from circa 1780 to circa 1860 (Figure 31). Despite this it is more common to find shell-edged whitewares rather than pearlwares in a post-1830 archeological context (Majewski and O'Brien 1987:152). The design featured an "intricate ruffle that is presumably intended to represent naturalistic shell rims" (Sussman 1977: 106). It first appeared on creamwares as early as 1775 (Noel Hume 1969:394). Another version of this motif consists of a series of impressed, closely spaced vertical lines. This simpler, more stylized variation postdates the more natural shell-edge, but both were produced concurrently in the late eighteenth through mid-nineteenth centuries. The shell-edge pattern, as well as other edge molded designs, was confined primarily to plates and serving pieces such as platters and condiment containers. Hollow forms of dinnerware and serving pieces, such as tureens, covered dishes, cups, and sauce boats were more often decorated with transfer-prints (Sussman 1977:109).

POHOKE and PORTICI

Flatware Rim Patterns



wsg- white saltglazed stoneware

cw- creamware

pw- pearlware

ww- whiteware

Figure 31

Colors were applied beneath the glaze to enhance the edge-molded, rim designs. Blue was the most popular color, followed by green. The two colors were apparently manufactured and marketed simultaneously. There is some indication that the green-painted, shell-edged vessels may have been more expensive than the blue (Sussman 1977).

Following the green and blue shell-edged plates in popularity were pearlware bowls, mugs, and cups garnished with colorful horizontal bands of liquid clay or slip. This decorative technique was known as annular and flourished from circa 1795 to circa 1815. It is confined almost exclusively to holloware forms. This method of decoration first appeared on creamwares circa 1785. It remained fashionable well into the twentieth century on utilitarian redwares and yellowares (Noel Hume 1969:131-2).

Another more stylized form of annular ware known as "mocha" was created in England circa 1799. The design is characterized by a fern or branch coral-like pattern on otherwise purely annular ware (Noel Hume 1969:131). The dendritic shapes were produced by the capillary action of a potters "tea" on wet clay. "Tea" recipes varied from potter to potter but stale urine and tobacco juice are two constant ingredients essential to this brew. The "trees" produced by this decorative technique resembled a variety of naturally occurring quartz called moss agate. These stones are indigenous to the Arabian seaport Mocha and were also known as mocha stones. And so this "dip't ware" as it was referred to by its manufacturers, came to be known as "mocha" (Handler 1989:9,69).

An abundance of brightly colored, slip-decorated wares soon emerged with cat's eyes, worm, marbleized, trailing, and balloon designs. All these tri-colored patterns were applied with a three-spout cup as the vessel was turned upon a lathe. These slip decorated wares, whether a cream, pearl, white, red or yellow clay body, became the cheapest decorated ceramics available in their day (Handler 1989:8). These wares were also manufactured in many of the Atlantic coast states.

The taste English consumers had developed for bone china, introduced by Josiah Spode in 1790, had an effect on the British potters of the early nineteenth century. The demand for whiter wares generated a race to continue whitening earthenware bodies (Majewski and O'Brien 1987:130). By the 1820s whiteware, a harder ceramic with a different type of glaze, had developed out of pearlware (Miller 1989:2). A wide spectrum of white-pasted wares were manufactured throughout the remaining nineteenth century and into the twentieth.

Early whiteware vessels were often decorated. The most common techniques include underglaze transfer-printing in a wide variety of colors. Whiteware is also decorated in under- and overglaze hand-painted motifs in an equally diverse color spectrum. Later whiteware reflects decline in popularity of elaborate decoration.

A lead-free glaze was developed in England about the same time whiteware appeared. The glaze was produced in an effort to reduce the health risks posed by the leadglazes. This glaze, invented by John Rose, proved too expensive to make. One of the essential ingredients was borax (Majewski and O'Brien 1987:111), which was imported from Tibet (Charles 1983:41).

Two reasons leadglazes were so popular was their long firing ranges and the fact that they were not prone to over or underfiring. They were also less sensitive to variations in the chemical composition which resulted from poor preparation and low quality ingredients. Throughout the eighteenth and nineteenth centuries lead oxide was used for the glazes produced. In this form it is less likely to leach from the glaze and contaminate foods. Glazes made with raw lead contained a very soluble form of lead. Lead poisoning reached alarming proportions soon thereafter. By 1900, the British government began regulating the use of soluble lead compounds. Fritted lead borosilicate glazes became the most common glaze applied to tablewares during the twentieth century (Majewski and O'Brien 1987:111).

While whitewares became the dominant tableware in the early nineteenth century, a yellow-bodied earthenware cornered the utilitarian ware market. Yelloware emerged during the 1820s and quickly surpassed the redwares and stonewares in popularity. While yelloware continued to be imported from England, it was also produced in New York, New Jersey, Pennsylvania, Ohio, Vermont, and Maryland. America witnessed peak production, and popularity, of yelloware from the 1840s through the 1870s (Leibowitz 1985).

Also created from a hard yellow-bodied earthenware were pitchers and teapots imitating the thick, uneven, molasses-like brown surface of English Rockingham, dated circa 1788 (Noel Hume 1969:101). American versions were manufactured in Bennington, Vermont, and Baltimore, Maryland, potteries. The most popular motif was the molded relief picture of "Rebecca at the Well" (Noel Hume 1969:101). The Bennington wares continue to be made today.

Yellow ware was decorated with the same annular and swirling slip designs that garnished creamware, pearlware, and whiteware. Brightly colored pigments applied with sponges in a variety of patterns were also favored. These wares declined in popularity during the late nineteenth century as the mass-produced whitewares glutted the market with inexpensive vessels (Liebowitz 1985:9).

Many variants of white-bodied wares appeared throughout the nineteenth century. There was a great diversity in the degree to which the body was vitrified. The more vitrified bodies are often referred to as ironstone or "stone china." The latter was first marketed by Josiah Spode in 1805. It was a fine-grained, high-fired, earthenware which approximated porcelain in hardness. Both types of this high-fired ware developed primarily as a competitive response to the growing French porcelain manufacturers. England meant to retain the market she had created for herself through the earlier development of bone china.

By the 1840s these stone china wares were very popular in America. In fact most ironstone was specifically manufactured for the American market (Hughes and Hughes 1968:173; Sussman 1985:7). The decorations on these newer wares continued emulating oriental patterns. The expression of these traditional motifs was now done through painting gaudy polychrome pigments and lustres. During the last half of the nineteenth century, ironstones were either embellished with unpainted, molded, geometric, floral or foliate themes, or left undecorated (Majewski and O'Brien 1987:122; Miller 1989:18).

Stoneware

Stoneware is a hard, high-fired ceramic that has been vitrified to some degree (Oswald et.al. 1982:15). This durable ware is fired in a ceramic kiln at temperatures of 1200 to 1300 degrees Celsius. The vitrification which occurs during the firing renders stoneware vessels impermeable to liquids as well as resistant to acid (Greer 1981:15). Glazes were used to enhance the appearance of stoneware as well as to render it smooth and easy to clean. Durable, leak-proof, and acid resistant stoneware soon replaced earthenwares as the preferred household storage vessel. The dense, vitrified body, however, was not suited to the heat of cooking. The most common stoneware forms produced were bottles, storage jars, jugs, chamber pots, and mugs.

Stoneware slowly evolved from the Medieval earthenware traditions of northern France and areas along the Rhine River during the twelfth and thirteenth centuries. By the fourteenth century truly vitrified, unglazed stonewares were being produced in both France and Germany. This durable ware was extremely popular and large manufacturing centers soon developed. Early in the fifteenth century the major manufacturing centers along the Rhine River -- Seigburg, Cologne and Raeren -- began glazing their stoneware with salt. This glazing technique entailed casting common salt in the kiln during firing. The pitted, glassy surface created by this method resembled the skin of an orange or grapefruit. Throughout the fifteenth century the Rhenish potters mastered

throwing ornate forms on the wheel along with perfecting the saltglazing and firing techniques. They also experimented with elaborate incised and sprigged decorations applied to the vessel exteriors. Beginning in the sixteenth century, cobalt oxide was added placing blue on the decorative palette which heretofore had only included ferruginous browns (Greer 1981:17).

In seventeenth- and eighteenth- century Europe and America, the most durable ceramics available were German-produced stonewares. The early exported Rhenish stoneware vessels were predominantly squat, narrow-necked, saltglazed bottles and jugs. The exteriors were a mottled-brown decorated with sprig-molded male faces sporting long, flowing beards. The highest grade of these anthropomorphic vessels often had medallions and inscriptions. Vessels bearing this decoration are known as "longbeards," Bartmanns, or bellarmines (Noel Hume 1969:55-57, 279).

Rhenish gray saltglazed stoneware mugs, jugs, and chamber pots were a specialty of the Rhineland's Westerwald region during the seventeenth and eighteenth centuries. These items were primarily produced for tavern use, although, they were popular in homes as well. By the early eighteenth century, the Westerwald potters had begun catering their production specifically to the English market. This practice lasted until the third quarter of the eighteenth century (Noel Hume 1967:351).

The early Westerwald vessels of the 1660s were elaborately and painstakingly decorated with sprigged flowers highlighted with (blue) cobalt and (purple) manganese oxide. The jewel-like quality imparted to these pieces made them extremely popular. So popular in fact, that to keep pace with the demand, the potter soon had to apply decorations in an assembly line-like fashion. Understandably, the artistic quality applied to these wares notably declined by the second quarter of the eighteenth century. Decorations eventually degenerated to stamped and incised geometric or floral patterns which were sloppily painted with cobalt (Noel Hume 1969:280-282).

German stoneware maintained a virtual monopoly on the English market until John Dwight began manufacturing stoneware in Fulham, England, in 1671 (Noel Hume 1969:112). English brown stoneware appeared most commonly as tavern wares but found a place in domestic settings as well. The manufacture of these sturdy, glossy, brown stonewares spans the eighteenth century. They were popular exports to the colonies between circa 1690 and circa 1775 (Noel Hume 1969:114).

Although the English produced some utilitarian stonewares, the newly acquired technique was soon put to use in the manufacture of very fine, expensive, highly decorated wares. This fine, white saltglazed stoneware was of immense importance to the British ceramic industry. The clay used to produce the white stoneware became the clay English potters experimented with to develop creamware (Noel Hume 1970:123). This clay was the catalyst which heralded the evolution of the white-bodied wares that ultimately placed England in the position to dominate the world's refined earthenware market from the late eighteenth century through approximately 1880 ((Majewski and O'Brien 1987:114).

White saltglazed stoneware flourished from circa 1720 to circa 1800 throughout England and the colonies (South 1977:211). This elegant stoneware was fashioned into thin-bodied vessels destined for the dining table or for ornamental use (see Figure 31). Relief decorations such as the "barley," floral, or "dot, diaper and basket" patterns were press-molded on vessels during the 1750s. Many of the decorative patterns developed for creamware during the 1760s were simultaneously applied to white saltglazed stoneware. Border motifs such as the "rope," "bead," or "bead and reel" appeared during the 1770s. Applications of slips with iron oxides or cobalt and white pipe clay produced "chocolate" and "Littler's blue" white saltglazed stonewares (Noel Hume 1969:118-119).

During the mid-eighteenth century, white saltglazed stoneware vessels were also decorated with incised designs. These designs were filled with cobalt blue before firing. This technique created thin blue lines which came to be called "scratch blue." Created in imitation of the imported German stoneware design elements, the production of scratch blue was confined to the third quarter of the eighteenth century (Noel Hume 1969:117-118). The demand for white saltglazed stoneware was ultimately displaced by creamware (Miller 1989:1).

Advances in the English stoneware industry resulted in the development of a dry-bodied, red stoneware. While the most renowned pieces were created by Wedgwood, other potters produced generic equivalents throughout the eighteenth century. The most popular vessel form for these dry-bodied red stonewares was the teapot. Occasionally these redwares were leadglazed. Both varieties of this stoneware were exported to the colonies during the third quarter of the eighteenth century (Noel Hume 1969:121).

To contrast this red-bodied stoneware, Wedgwood created a dry-bodied, black stoneware in 1750. This distinctive teaware was known as "black basalt." The application of a glossy, leadglaze to the same ware transformed it into "Egyptian black basalt." Both styles were popular through the first quarter of the nineteenth century.

American potters were also very successful on the homefront selling their utilitarian stonewares. The first documented instance was William Rogers' pottery in Yorktown, Virginia. During the second quarter of the eighteenth century, Rogers produced brown stoneware mugs, bottles, and pitchers comparable to English brown stonewares of the day (Noel Hume 1969:100). Potters in Philadelphia, New Jersey, and New York also produced stonewares decorated similar to European Westerwald wares.

The German Palatinate potters of Pennsylvania, Maryland, the Carolinas, and the Shenandoah Valley produced gray-bodied stonewares decorated in blue, purple, yellow, brown, and green designs. From 1832 until the beginning of the twentieth century, these potters created utilitarian wares as well as decorative molded pieces, such as lizard and snake door stops (Rice and Stoudt 1929:73).

One of the premier pottery producing areas was in Strasburg, Virginia. There were six potteries operating in what was known as "Pot Town" in the Strasburg area of the Shenandoah Valley during the nineteenth and early twentieth century (Rice and Stoudt 1929:41). The only disruption in manufacture experienced by these potteries was during and following the American Civil War. The war created a shortage of the minerals needed to glaze the ceramics. No longer commercially available, these elements had to be collected from shops, families, and battlefields. Copper kettles and zinc utensils were purchased. Lead bullets were retrieved from the fields and melted down for use in the pottery (Rice and Stoudt 1929:49).

The Bell family also figured prominently in the local manufacture of stonewares. The Bells produced a substantial volume of high quality saltglazed stonewares. They also generated many apprentice potters. Potters trained by the Bells in turn, established potteries in West Virginia, Kentucky, and Tennessee. The stoneware traditions brought by the Bell family soon spread across the nation (Rice and Stoudt 1929:41).

Alexandria, Virginia, began manufacturing stonewares at the Wilkes Street Pottery during the early nineteenth century. The most common forms produced included jugs, pots, milk pans, churns, pitchers, chamber pots, crocks, and water coolers.

The history of Alexandria stoneware manufacture is dominated by three artisans. Two of these gentleman were potters as well as merchants. The third, owned his own pottery shop, but hired a score of apprentices to manufacture and decorate the stonewares he designed.

The first of these potters was John Swann who operated his shop from 1813 to 1825. Swann initially manufactured brown stonewares but, following numerous experiments with clay, switched to the production of gray-bodied stonewares. Swann decorated his earlier brown stoneware vessels with an iron oxide wash beneath a saltglaze. His later gray-bodied stonewares were decorated with cobalt blue slip designs beneath a saltglaze. Swann's minimalist designs included flowers, swags and tassels, chains, and zigzags. Few of Swann's vessels were marked with his name, although most had capacity stamps and his distinctive designs (Myers 1983:47).

The second period of Alexandria stoneware was dominated by the Hugh Smith shop from circa 1825 to circa 1854. While Smith was not a potter himself, his staff of skilled artisans created some of Alexandria's most highly decorated wares. The stoneware sold by Smith was decorated with cobalt slip in exuberant C-scroll vines, gradual shading of flowers and leaves, tassels, and swags (Myers 1983:14). The most noteworthy motif was a combination of leaves and flowers on a curving stem. This was a recurring theme on Smith's vessels and also appeared on later works by B.C. Milburn (Myers 1983:15).

From 1841 to 1867, Benedict C. Milburn became Alexandria's third producer of stoneware. He was a former employee of Hugh Smith's pottery shop. Milburn's wares were most notable for their elaborate slip-trailed and brushed designs in dark cobalt blue (Myers 1983:24). Most of these vessels bear Milburn's stamp along with a plethora of symmetrical flowers, leaves, swags, tassels, or a design combining three of these patterns (Myers 1983:67). Following Milburn's death in 1867, his three sons carried on the stoneware tradition until the pottery closed in 1876.

Porcelain

Porcelain is also a vitrified ceramic but differs from stoneware in its translucency, higher firing temperature and the ingredients which compose it. A mixture of kaolin and petunste are fired to a temperature between 1250 and 1400 degrees Celsius creating this completely vitrified ceramic (Greer 1981:15). Kaolin is a natural white clay with a remarkably fine consistency. It requires no additional refinement once it has been removed from the earth. Petunste is a type of feldsparic stone with an extremely high quartz content. It requires a great deal of processing before it can be successfully mixed with the kaolin. The quartz in the petunste contributes to the impermeable, vitreous qualities of porcelain. It is also the principal glaze producing agent. Quite often oils from lime and fern ash or ground animal bone were added to increase the porcelain's whiteness (Mudge 1962:47-48).

The Western world first noticed and came to crave porcelain during the second century (Schiffer 1975:7). The manufacture of porcelain, however, was virtually a Chinese monopoly through the eighteenth century. Throughout the centuries China never exported her highest quality porcelains. While trade agreements were eventually reached, the Chinese viewed foreigners with disdain and reserved all their best porcelain for imperial use. Generally, only the poorer grades of porcelain found their way into the foreign market (Mudge 1962:42-44).

Nevertheless, the porcelains imported to Europe and America during the seventeenth and first half of the eighteenth centuries were a fairly expensive commodity found primarily in the more affluent homes. It was incomparable to the everyday dishes and consequently enhanced the owners social position, as well as their daily dining pleasure. After the second quarter of the eighteenth century its popularity and availability increased, reducing the price and putting it within the reach of the general public (Noel Hume 1969:257). The popularity and demand for Chinese porcelain had an effect on the artistic quality which had dramatically decreased by the end of the eighteenth century (Noel Hume 1969:261).

Two manners of decoration dominate porcelain. Underglaze designs involve painting color pigments before firing and glazing. Cobalt blue is the most common color used on the Chinese export wares. In the application of overglaze designs, polychrome enamels and gilt are used after the piece was fired. Decorations combining the two techniques were also created. Overglaze designs were copied from seventeenth-century Japanese export porcelains. Typically the designs feature a busy underglaze blue pattern with a red and gilt overglaze design. The design itself was named after its Japanese port of departure, Imari, and decorated both Chinese and Japanese porcelains.

Imari porcelain also refers to a style of Japanese porcelain made in Arita and also exported through the city of Imari. These eighteenth-century porcelains are heavily decorated in polychrome enamels imitating contemporary brocade patterns (Schiffer 1986:111).

Japanese porcelains were not exported in any great quantity until the mid-nineteenth century. Japan maintained extreme isolationist policies from 1637 until 1853. Prior to 1853 only one licensed settlement of Chinese and Dutch merchants in Nagaskai harbor was allowed to engage in the foreign trade of Japanese porcelains. It was only through this one avenue that these elegant, elaborate overglaze decorations in floral and brocade patterns, found their way to the Western World (Schiffer 1986:24-25).

The numerous attempts of European potters to reproduce Chinese porcelains led to several alternatives which were often similar in appearance but differed technically in composition. These alternatives became known as "soft-paste." Soft-paste porcelains contain glassy frits as a flux which cause the other materials in the clay body to fuse (Charles 1983:244).

American potters also attempted to manufacture porcelains. During the fall of 1769, Bonnin and Morris began turning out underglaze blue wares which were called porcelain. However, these wares were not fired hard enough to be called true porcelain. The pottery was unsuccessful and closed in 1772 (Noel Hume 1969:100).

The production of hard-paste porcelain was not achieved in Europe until the early eighteenth century. Deposits of kaolin were first located in Cornwall, England, circa 1747. The production of hard-paste was patented and only done at Plymouth. The patent was subsequently sold first to Bristol and finally to New Hall (Charles 1983:197).

English experiments with porcelain manufacture led not only to the development of soft-paste, glass frit porcelain but also to bone china. The latter became England's most outstanding contribution to the development of porcelain (Majewski and O'Brien 1987:126). This type of china was created in 1794 in an attempt to emulate the Chinese hard-paste porcelains. It is technically neither a hard-paste nor a soft-paste porcelain. Rather, it is a class in its own right (Charles 1983:40-41). Bone china is a high quality, translucent, durable ceramic. It received its name from the use of calcined-bone as a flux to obtain its vitreous body.

Bone china became the standard English porcelain manufactured in the nineteenth century. American companies attempted to manufacture bone china in the late eighteenth century, but they were unable to compete successfully with the English china until the 1890s (Majewski and O'Brien 1987:127).

Analysis

The traditional analysis of ceramics which is based upon physical attributes, goes far beyond mere physical description. Ceramics reflect changes in social and economic processes and provide insights concerning the status and ethnicity of those using the dishes. Ceramic fragments recovered from the archeological excavations at Pohoke and Portici were first sorted by ware type, by vessel function and form, and finally, by decorative techniques.

The ceramics were first assigned to one of the three primary ware types based upon their physical properties and the temperatures required for clay fusion. These categories are earthenware, stoneware, and porcelain. The sherds were next grouped by vessel function. This step provides a method of classifying ceramics as either utilitarian wares or tablewares. Utilitarian ceramics were commonly used in the preparation, preservation, and storage of foods. Coarser stonewares and earthenwares generally fall into this category. Tablewares were typically employed to serve and consume foods. Refined stonewares, earthenwares, and porcelains were most often used in this capacity.

Vessel form further defines the ceramic as either holloware or flatware (Figure 32). Hollowares include those vessels with some degree of depth. Holloware forms such as bowls, mugs, and soup plates, are convenient receptacles for soups, stews and porridges. Flatwares are shallow vessels which are more or less flat with a rim that is generally parallel to the base. The plates and platters in this category are better suited to drier entrees such as roasts and baked goods. Certain vessel shapes are more suited to specific types of food, subsequently the ratio of hollowares to flatwares reflects differences in the preparation and consumption of foods. This information can serve as an indicator of social and economic status, and often assists in determining site ethnicity (South 1972:99).

The identification of decorative techniques applied to ceramics often provides information revealing the date, and often, the place of manufacture. Decoration is also a means of establishing price-scaling, which in turn, may reflect the general purchasing power and economic status of the occupants (Miller 1989). Designs can also reveal both personal and cultural tastes.

The final stage in analyzing the ceramic assemblages from Pohoke and Portici involved the application of South's mean ceramic date formula (South 1977:217). This mathematical formula relies upon the presence or absence of specific ceramic types, and their respective date ranges, to provide a mean date for the occupation of a site. This formula is expressed:

$$Y = \frac{\sum_{i=1}^{n} X_i \cdot f_i}{\sum_{i=1}^{n} f_i}$$

Y = mean ceramic date
Xi = median date of manufacture for each ceramic type
Fi = frequency of each ceramic type
N = number of ceramic types in the sample

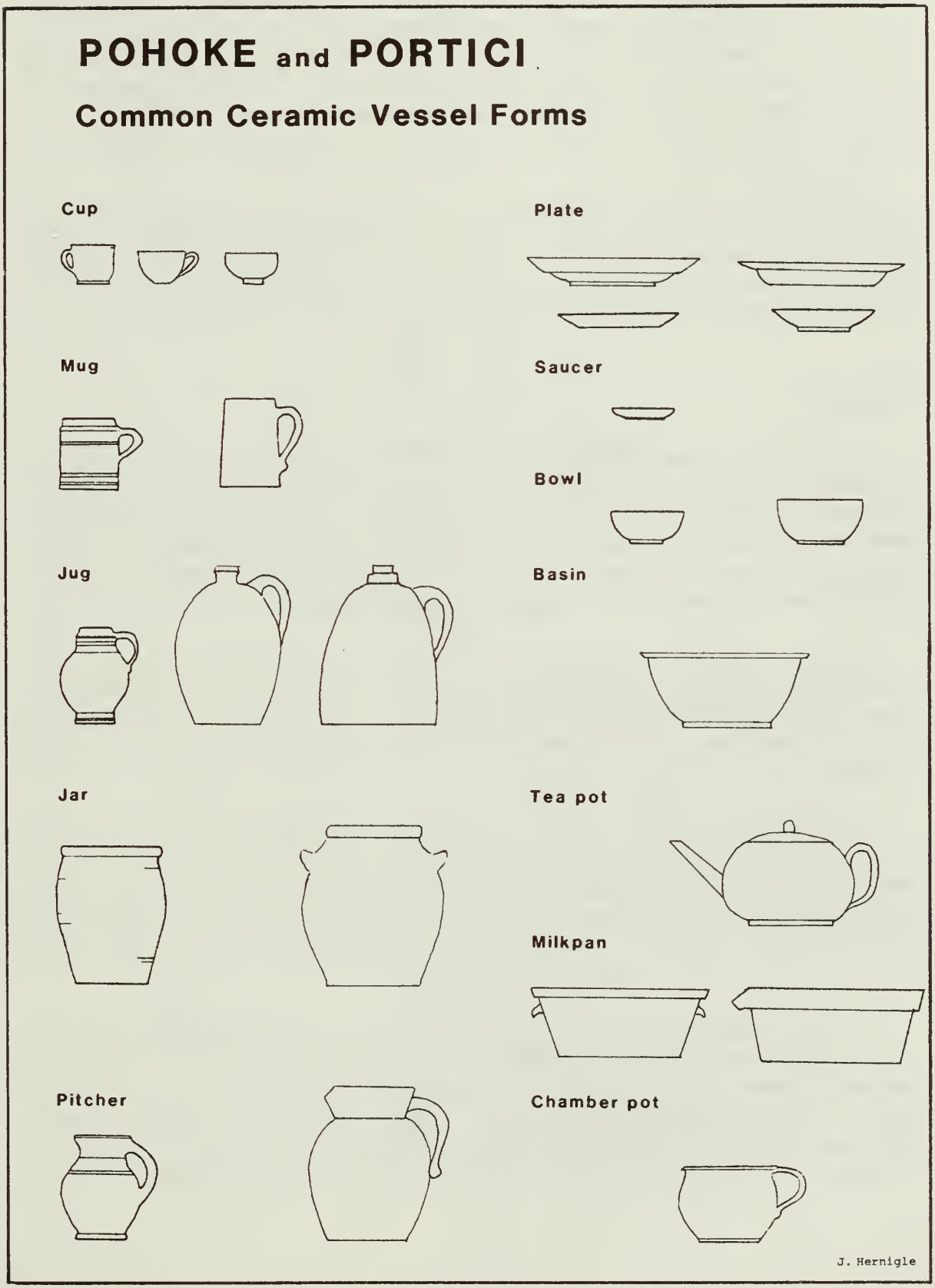

POHOKE and PORTICI
Common Ceramic Vessel Forms
Cup
Plate
Mug
Saucer
Bowl
Jug
Basin
Jar
Tea pot
Milkpan
Pitcher
Chamber pot
J. Hernigle

Figure 32

The archeologist first quantifies the frequency at which various ceramic types occur. The median date range of manufacture for each ceramic type is then multiplied by the first figure. This figure represents the product of each ceramic type's median date times the frequency of occurrence. The sum of the product column is then divided by the sum of the frequency column yielding a mean ceramic date for the entire ceramic assemblage (for examples see Appendix J).

The mean date formula was applied to the ceramic data recovered from all excavation units at Pohoke and Portici. A comparison of these mean ceramic dates with mean nail dates, obtained in an identical manner (see Chapter 9), generated important information concerning the construction and destruction dates of the dwellings examined, as well as the dates of their occupation.

Pohoke

Ceramics represent 34% of the total artifact assemblage recovered from site 44PW335 (Table 6.1). Of these 4,679 fragments, 219 objects are discussed in subsequent chapters. These items include prehistoric pottery, clay tobacco pipes, porcelain buttons, dolls, marbles, and gaming pieces. Archeological evidence of two structures was recovered at this site. The ceramic assemblages are therefore grouped and discussed by their respective associations.

Based on historic documentation and general artifact patterns, Structure 1, exposed by excavation Units 2,3,4,6, and 119, is suspected of serving as a frame slave cabin. Thirty-five percent the ceramic assemblage, which includes 1,629 sherds, is associated with this dwelling (Table 6.2). Ninety-one percent of these objects are refined wares, the remaining nine percent are utilitarian.

The refined earthenwares are dominated by whitewares, which represent 51% of the assemblage, and pearlware, 30%. Less than one percent of the refined wares are represented by stonewares and three percent are porcelains. The whitewares and pearlwares reflect the most current wares available during the approximate 40-year occupation of the structure from circa 1820 to circa 1863.

Of the earthenwares associated with Structure 1 five percent are annular (this includes banded, marbled, mocha, and cat's eye patterns); 12% monochrome and polychrome painted; ten percent edge decorated; ten percent transfer printed; and 67% are undecorated (Table 6.3). These figures are similar to those associated with three slave cabins excavated at Andrew Jackson's Hermitage in Tennessee. The construction and occupation dates of the Hermitage's east, west,

TABLE 6.1 Pohoke Ceramics

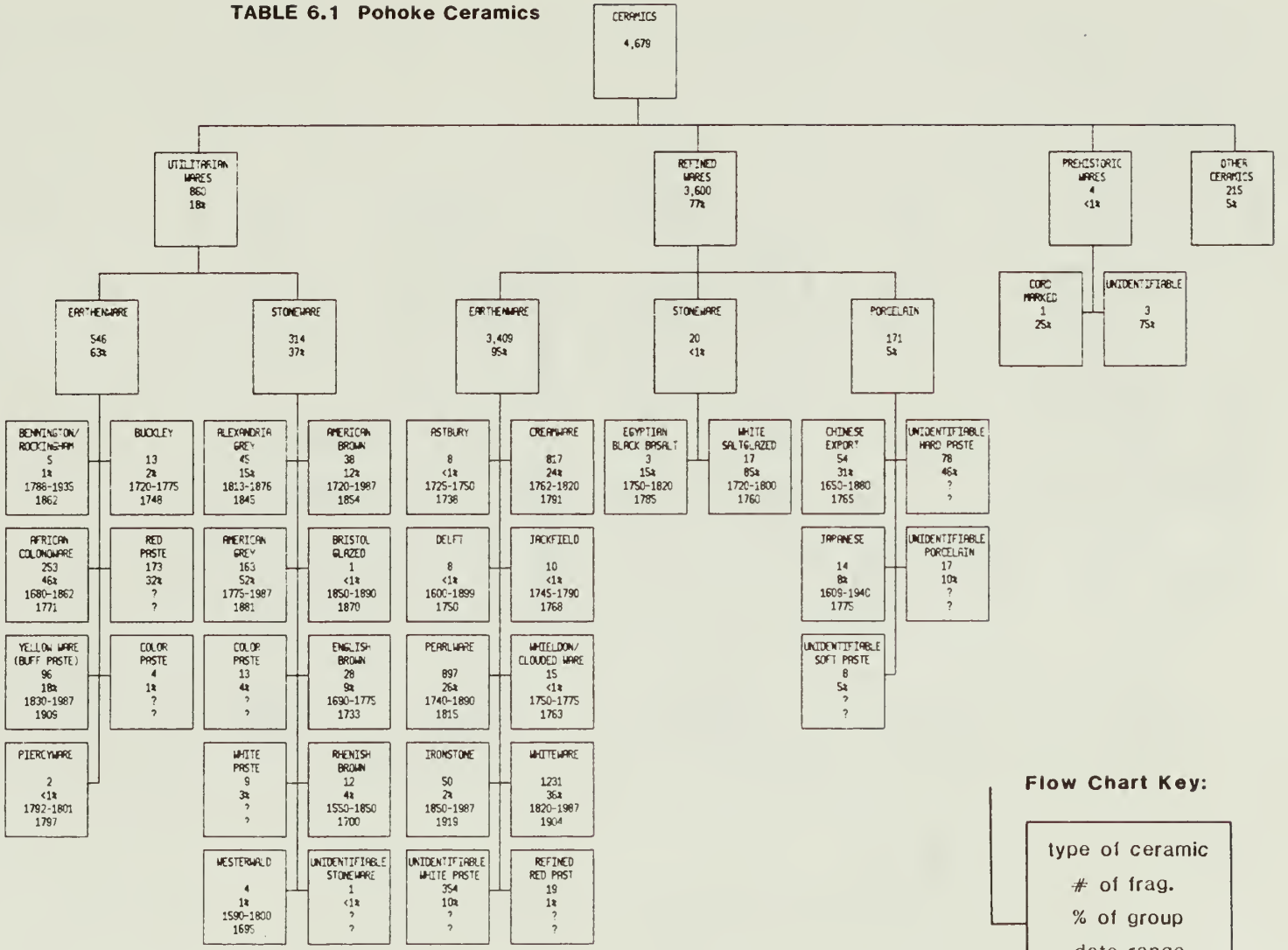


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TABLE 6.2 Pohoke Ceramics **Structure 1-Slave Quarters**

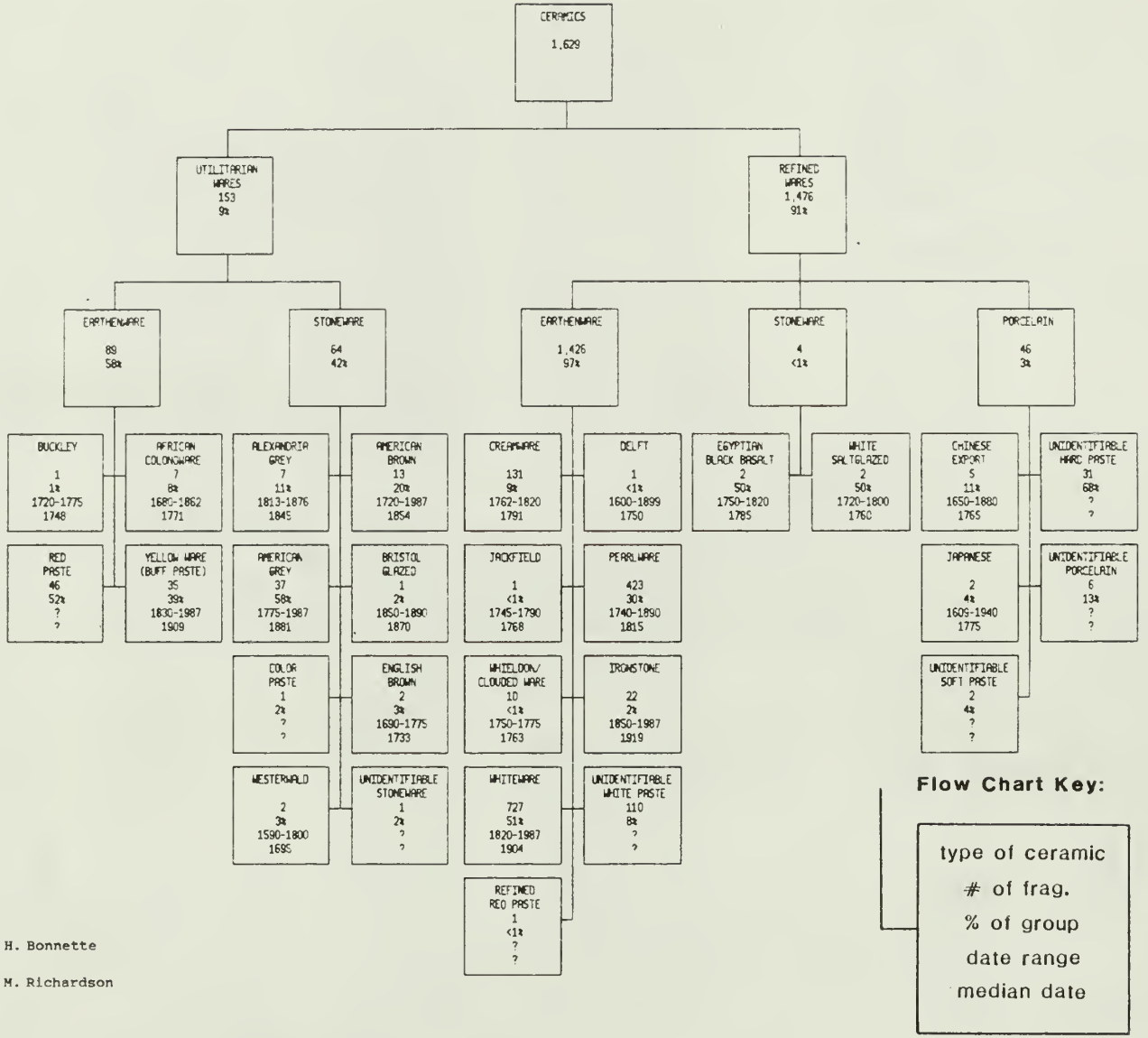

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TABLE 6.3 POHOKE CERAMICS: FORM AND DECORATION
STRUCTURE 1 - SLAVE QUARTERS

CERAMIC	FORM		DECORATION						
			TRANSFER	SHELL-EDGE	ANNULAR	HAND PT.	UNDEC.	OTHER	TOTAL
CREAMWARE	HOLLOWARE	#	0	0	0	1	24	4	29
		%	0.0%	0.0%	0.0%	3.4%	82.8%	13.8%	
	FLATWARE	#	0	0	0	0	6	5	11
		%	0.0%	0.0%	0.0%	0.0%	54.5%	45.5%	
	UNDET.	#	0	0	0	0	90	1	91
		%	0.0%	0.0%	0.0%	0.0%	98.9%	1.1%	
	TOTAL	#	0	0	0	1	120	10	131
		%	0.0%	0.0%	0.0%	0.8%	91.6%	7.6%	
PEARLWARE	HOLLOWARE	#	21	0	7	46	44	0	118
		%	17.8%	0.0%	5.9%	39.0%	37.3%	0.0%	
	FLATWARE	#	12	27	0	0	15	1	55
		%	21.8%	49.1%	0.0%	0.0%	27.3%	1.8%	
	UNDET.	#	14	0	5	25	206	0	250
		%	5.6%	0.0%	2.0%	10.0%	82.4%	0.0%	
	TOTAL	#	47	27	12	71	265	1	423
		%	11.1%	6.4%	2.8%	16.8%	62.6%	0.2%	
IRONSTONE	HOLLOWARE	#	0	0	0	1	4	1	6
		%	0.0%	0.0%	0.0%	16.7%	66.7%	16.7%	
	FLATWARE	#	0	0	0	2	1	5	8
		%	0.0%	0.0%	0.0%	25.0%	12.5%	62.5%	
	UNDET.	#	2	0	0	0	6	0	8
		%	25.0%	0.0%	0.0%	0.0%	75.0%	0.0%	
	TOTAL	#	2	0	0	3	11	6	22
		%	9.1%	0.0%	0.0%	13.6%	50.0%	27.3%	
YELLOW WARE	HOLLOWARE	#	0	0	4	0	13	0	17
		%	0.0%	0.0%	23.5%	0.0%	76.5%	0.0%	
	FLATWARE	#	0	0	0	0	2	0	2
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
	UNDET.	#	0	0	1	0	15	0	16
		%	0.0%	0.0%	6.3%	0.0%	93.8%	0.0%	
	TOTAL	#	0	0	5	0	30	0	35
		%	0.0%	0.0%	14.3%	0.0%	85.7%	0.0%	
WHITEWARE	HOLLOWARE	#	28	0	25	40	89	2	184
		%	15.2%	0.0%	13.6%	21.7%	48.4%	1.1%	
	FLATWARE	#	29	24	0	7	20	0	80
		%	36.3%	30.0%	0.0%	8.8%	25.0%	0.0%	
	UNDET.	#	29	0	21	41	370	2	463
		%	6.3%	0.0%	4.5%	8.9%	79.9%	0.4%	
	TOTAL	#	86	24	46	88	479	4	727
		%	11.8%	3.3%	6.3%	12.1%	65.9%	0.6%	
TOTAL			135	51	63	163	905	21	1338
			10.1%	3.8%	4.7%	12.2%	67.6%	1.6%	

H. Bonnette

M. Richardson

and south cabins are concurrent with Portici's Structure 1 slave quarter. Annular wares recovered from the Hermitage cabins form two, three, and seven percent of the ceramic assemblages in the east, west, and south cabins respectively. Nine percent (east cabin), five percent (west cabin), and six percent (south cabin) are monochrome and polychrome painted wares; six percent (east), ten percent (west), and seven percent (south) are edge-decorated; 16% (east), ten percent (west), and eight percent (south) are transfer printed; and 44% (east), 61% (west), and 51% (south) are undecorated refined earthenwares (Smith 1976:143-151).

There is a notable difference when comparing the ceramic assemblage associated with the Cannon's Point plantation slave cabin. Here, only 29% of the whitewares and pearlwares are undecorated while 25% of the collection is annular decorated; five percent painted; 12% edge decorated; and 21% transfer printed (Otto 1984:64). Perhaps these dissimilarities are related to the geographical placements in this comparison of assemblages from two inland, frontier plantations with a sea coast plantation complex.

The decorated ceramics associated with Structure 1 are heterogeneous. This mismatched quality is a common phenomena at many slave sites where odd-lot decorated ceramics were often purchased for or by the slaves. The slaves frequently purchased single ceramic items for themselves to supplement distributed wares and often purely for aesthetic purposes. Chipped or unfashionable pieces were sometimes transferred from the planter's table to the slave's table. This lateral transference more often occurred with homogeneously decorated ceramic services. When newer, more fashionable tablewares were purchased for the planter household, the older pieces were generally passed along to the slaves (Majewski and O'Brien 1987).

The utilitarian ceramics recovered from Structure 1 form nine percent of the ceramic assemblage and are represented by both earthenwares (58%) and stonewares (42%). Fifty-two percent of these utilitarian earthenwares are red pasted wares, 39% are yellow ware, eight percent are African colonoware, and one percent Buckley. With the exception of the British-made Buckley fragments, all the utilitarian earthenwares recovered are apparently of American origin. Domestic, and particularly, locally manufactured, ceramics were considerably less expensive than imports. This is a practical consideration for wares which will be used heavily and are at greater risk of damage or destruction.

The utilitarian stonewares are also predominantly of American origin. American gray stonewares represent 58% of this assemblage, American brown stoneware forms 20%, Alexandria gray 11%, and Bristol-glazed stoneware two percent. The remaining vessels were imported from Europe. Westerwald and English brown stonewares each form three percent of this assemblage. Four

percent of these utilitarian stonewares are unidentifiable.

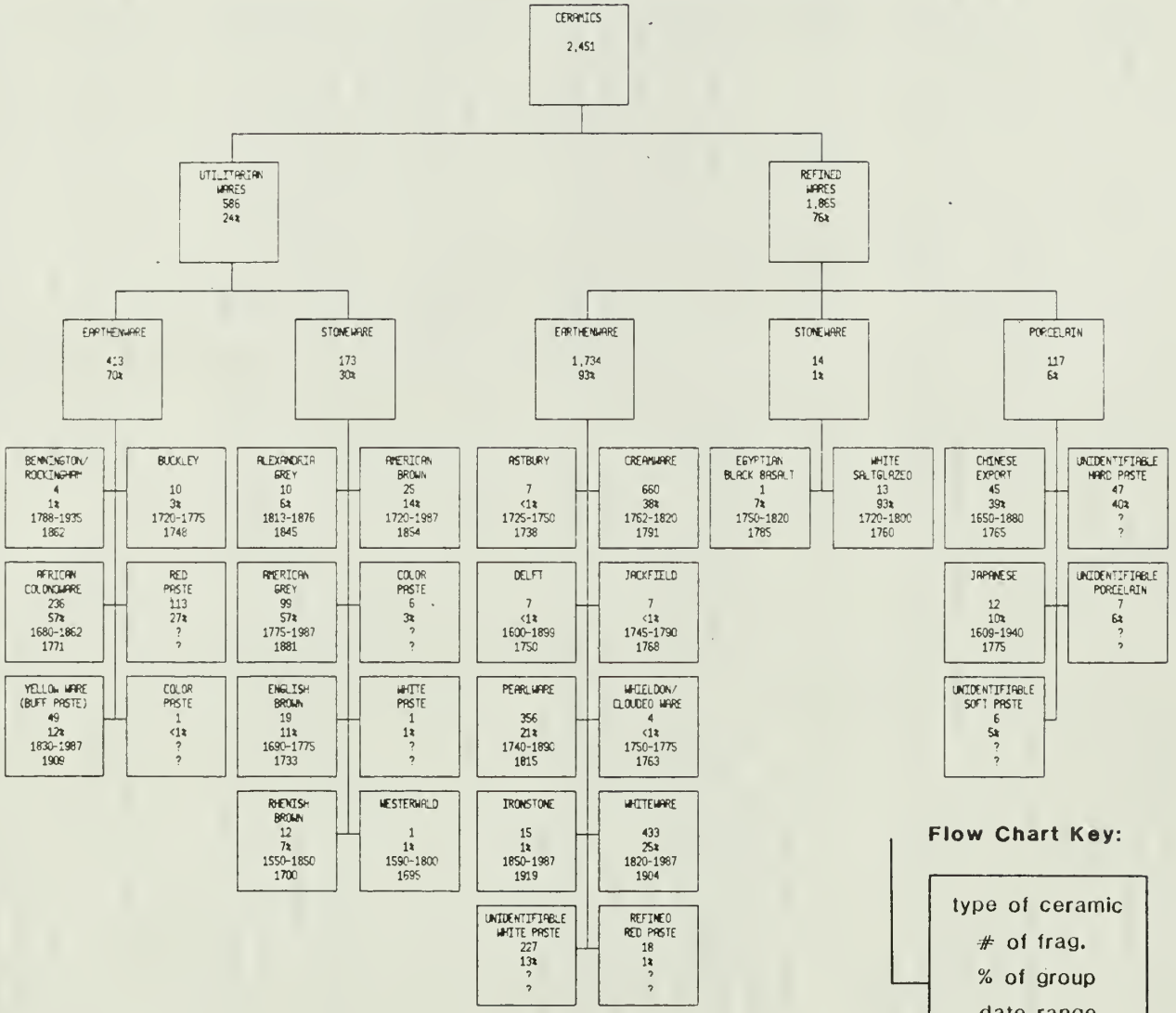
Holloware vessels form 33% of the ceramics associated with Structure 1. Flatware vessels represent 11% of this collection. Fifty-six percent of the ceramics are of undetermined vessel form (see Table 6.3). This three-to-one ratio of hollow to flat forms suggests that more viscous type meals such as stews or soups were consumed. The frequency of the Structure 1 vessel forms corresponds to the frequency typically ascribed to contemporaneous slave occupations (Otto 1984; Kelso 1982; Deetz 1977:50). Holloware vessels are simply the more practical of the two forms, particularly when the resources are limited, because they are more versatile. They can function as receptacles for any type of food from soup and porridge, to biscuits, roasted meats, vegetables, fruits, and even beverages. Hollowares can be used to procure and prepare foods, to serve it, and finally to consume it.

Ceramic fragments associated with Structure 1 were used to calculate a mean ceramic occupational date of circa 1854. This date reinforces the overall contemporary nature of the ceramic assemblage at this slave quarter. This date also suggests the structure was well-maintained so that refuse generated during the 40-year occupation was systematically removed and not allowed to collect. Ceramics were also employed to calculate a mean date of construction for this dwelling. Nails were also used in this capacity. The mean ceramic construction date for Structure 1 is circa 1823. The mean construction date suggested by the nails is circa 1820.

Structure 2, revealed by excavation Unit 137 is thought to represent the eighteenth-century dwelling house at Pohoke plantation. The structure was apparently abandoned and dismantled following the Ball family's relocation in 1820, to the mansion house at Portici, site 44PW348. The exposed half-cellar beneath the old dwelling house was then used as a refuse pit for the occupants of the slave quarter constructed nearby. A total of 2,451 ceramic fragments were recovered from this cellar hole-turned-refuse pit. Eighty-seven percent of this assemblage is earthenware, seven percent stoneware, and six percent porcelain (Table 6.4).

Refined tablewares are represented by earthenwares (93%), stonewares (one percent), and porcelains (six percent). Creamware is the predominant refined earthenware in this assemblage. It represents 38% of the category while whiteware form 25%, pearlware 21%, and unidentified white-pasted wares 13%. The remaining three percent consists of delft, Astbury, Jackfield, and Whieldon-clouded wares. Refined stonewares recovered from Unit 137 represent portions of the two Egyptian black basalt and single white salt-glazed teaware vessels found in Structure 1.

TABLE 6.4 Pohoke Ceramics **Structure 2-Refuse Pit**



Flow Chart Key:

type of ceramic
# of frag.
% of group
date range
median date

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Structure 2's refuse fill included 117 fragments of porcelain. Chinese export porcelain tea wares represent 39% of this collection. Ten percent of this tableware is overglaze enameled Japanese Imari porcelain. These fragments are decorated with an elaborate polychrome brocade-like pattern. Fragments from one of the two vessels represented by these sherds are part of the Imari vessel recovered in Structure 1. Unidentifiable hard-paste porcelain represents 40% of the remaining fragments. Five percent are unidentifiable soft paste porcelains and six percent are unidentifiable.

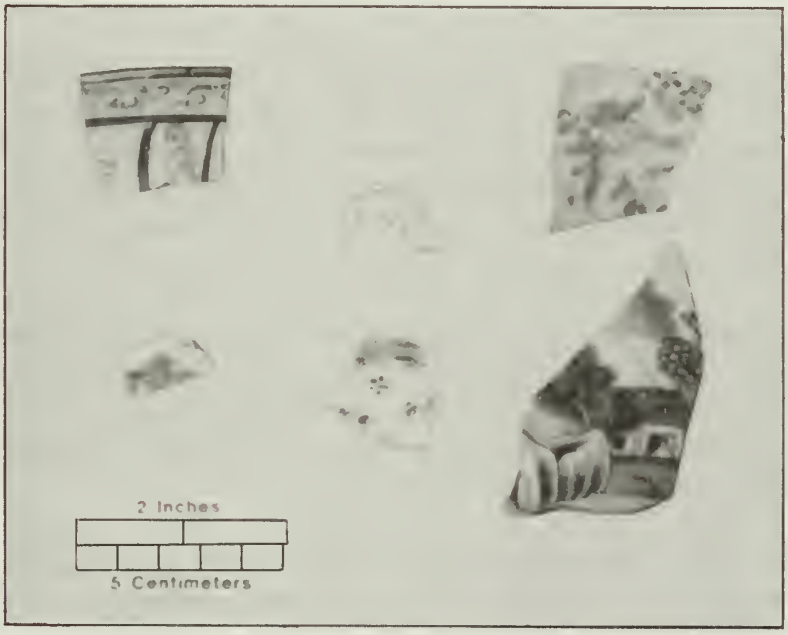

Figure 33 Fragments of Japanese Imari porcelains (left), Chinese Famille Rose (right) and Chinese Export porcelain (lower right) teawares recovered from the Structure 1 slave quarters at Pohoke.

Sixty-two percent of this ceramic assemblage is decorated (Table 6.5). Three percent of the earthenware (this class includes creamware, pearlware, whiteware, ironstone, and yellow ware) retrieved from this unit are annular; eight percent are monochrome and polychrome painted; four percent are shell-edge decorated; five percent are transfer printed; and four percent are embellished with other forms of decoration. The remaining 76% of the sherds are undecorated.

Utilitarian wares associated with the refuse pit include both earthenwares (70%) and stonewares (30%). The utilitarian earthenwares are dominated by African colonoware. This ware type represents 57% of the category, 27% are red-pasted earthenwares, 12% yellow wares, three percent Buckley ware, one percent Bennington/Rockingham, and less than one percent are unidentified color paste wares.

The higher frequency of African colonoware in the refuse pit compared to that of Structure 1 suggests the colonoware was gradually displaced by other commercially manufactured utilitarian wares. This indicates a general trend of upward mobility. As the plantation prospered, so did its occupants. Outdated, home or cottage-fashioned wares were therefore replaced with contemporary utilitarian vessels.

The utilitarian stonewares, like the earthenwares, are predominantly of American origin. American gray stonewares represent 57% of this collection, American brown stoneware 14%, and Alexandria gray stoneware six percent. The remaining vessels are imported. These include English brown stoneware (11%) and Rhenish brown stoneware (seven percent).

Holloware forms represent 44% of the vessels present in Structure 2. Eighteen percent of the vessels are flat forms. Thirty-eight percent of the ceramic fragments are of undetermined vessel form. This ratio of approximately two-to-one is in keeping with that identified at Structure 1 and other slave associated assemblages.

Mean ceramic dates were calculated to determine the approximate deposition sequence of various fill episodes in Structure 2. Ceramic fragments associated with strata representing distinct fill episodes with at least 50 diagnostic ceramic fragments were used. The ceramic-based fill sequence generated is not in chronological order. This is not unexpected or unusual because ceramics, like other objects, are not necessarily used, damaged, or disposed of in a chronologically sequential manner. The mean ceramic dates for major fill episodes from the ground surface to bedrock are circa 1817 (figure based on 223 sherds); circa 1841 (352 sherds); circa 1817 (172 sherds); circa 1826 (223 sherds); circa 1807 (188 sherds); circa 1834 (56 sherds); and circa 1792 (163 sherds).

TABLE 6.5 "POHOKE" CERAMICS: FORM AND DECORATION
STRUCTURE 2 - REFUSE PIT

CERAMIC	FORM		DECORATION						
			TRANSFER	SHELL-EDGE	ANNULAR	HAND PT.	UNDEC.	OTHER	TOTAL
CREAMWARE	HOLLOWARE	#	0	1	1	7	134	3	146
		%	0.0%	0.7%	0.7%	4.8%	91.8%	2.1%	
	FLATWARE	#	6	0	0	0	109	11	126
		%	4.8%	0.0%	0.0%	0.0%	86.5%	8.7%	
	UNDET.	#	1	0	2	0	360	25	388
		%	0.3%	0.0%	0.5%	0.0%	92.8%	6.4%	
	TOTAL	#	7	1	3	7	603	39	660
		%	1.1%	0.2%	0.5%	1.1%	91.4%	5.9%	
PEARLWARE	HOLLOWARE	#	5	0	28	56	37	2	128
		%	3.9%	0.0%	21.9%	43.8%	28.9%	1.6%	
	FLATWARE	#	6	31	0	3	66	5	111
		%	5.4%	27.9%	0.0%	2.7%	59.5%	4.5%	
	UNDET.	#	2	11	1	6	96	1	117
		%	1.7%	9.4%	0.9%	5.1%	82.1%	0.9%	
	TOTAL	#	13	42	29	65	199	8	356
		%	3.7%	11.8%	8.1%	18.3%	55.9%	2.2%	
IRONSTONE	HOLLOWARE	#	1	0	0	0	3	2	6
		%	16.7%	0.0%	0.0%	0.0%	50.0%	33.3%	
	FLATWARE	#	0	1	0	0	1	0	2
		%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	
	UNDET.	#	0	0	0	0	6	1	7
		%	0.0%	0.0%	0.0%	0.0%	85.7%	14.3%	
	TOTAL	#	1	1	0	0	10	3	15
		%	6.7%	6.7%	0.0%	0.0%	66.7%	20.0%	
YELLOW WARE	HOLLOWARE	#	0	0	2	0	10	1	13
		%	0.0%	0.0%	15.4%	0.0%	76.9%	7.7%	
	FLATWARE	#	0	0	0	0	21	0	21
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
	UNDET.	#	0	0	0	0	15	0	15
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
	TOTAL	#	0	0	2	0	46	1	49
		%	0.0%	0.0%	4.1%	0.0%	93.9%	2.0%	
WHITEWARE	HOLLOWARE	#	20	0	4	29	15	5	73
		%	27.4%	0.0%	5.5%	39.7%	20.5%	6.8%	
	FLATWARE	#	30	21	0	13	67	0	131
		%	22.9%	16.0%	0.0%	9.9%	51.1%	0.0%	
	UNDET.	#	3	1	6	7	212	0	229
		%	1.3%	0.4%	2.6%	3.1%	92.6%	0.0%	
	TOTAL	#	53	22	10	49	294	5	433
		%	12.2%	5.1%	2.3%	11.3%	67.9%	1.2%	
TOTAL			74	66	44	121	1152	56	1513
			4.9%	4.4%	2.9%	8.0%	76.1%	3.7%	

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M. Richardson

The mean ceramic dates reflected by the refuse fill in Structure 2 are somewhat earlier than the occupational dates associated with Structure 1. This may suggest the ceramics first used by the residents of the slave quarter were handed down, or transferred from the planter. The Ball family resided at Structure 2 from circa 1790 through circa 1820. The family then moved to their newly built mansion house. New ceramic services were quite possibly purchased at this time for the new, more formal dwelling. The older wares might well have been left with the slaves who moved into Structure 1.

The fluctuation occurring in the series of mean ceramic dates calculated for the various strata in Unit 137 may also correspond to distinct residential periods. Different groups or families of slaves may have occupied Structure 1.

Portici

Ceramics form three percent of the total artifact assemblage recovered at site 44PW348. Forty-four of these 2,228 ceramic objects are discussed in the following chapters. These items include tobacco pipes, porcelain buttons, clay marbles, gaming pieces, and dolls. A total of 199 ceramic fragments were recovered from the cellar slave quarters in the mansion house. The remaining 1,963 sherds are associated with the planter/military occupation at Portici (Table 6.6).

The domestic slave quarter is represented by a much smaller sample size than the quarters examined at site 44PW335 (Table 6.7). This disparity may be the result of excavating less than ten percent of the slaves' living area. Two other possibilities include that the ceramics used by these slaves were store elsewhere in the mansion cellar, or, that they were removed when the premises were evacuated in July, 1861.

Refined wares dominate the cellar assemblage, representing 76% of the fragments recovered. Earthenwares form 86% of this collection, stonewares represent two percent, and porcelains, 12%. The refined earthenwares are predominantly pearlware. This ware type forms 61% of the category, whiteware represents 26%, unidentified white-pasted wares 12%, and Astbury ware one percent.

Refined stoneware is represented by a single white salt-glazed vessel. This holloware fragment may have been an heirloom piece or part of a mismatched tea service used in the quarters. Undecorated, lower-grade, white soft-paste porcelains comprise 60% of the porcelain recovered from the cellar. Thirty percent of the porcelain is unidentifiable hard-paste, the remaining ten percent is Chinese export porcelain.

TABLE 6.6 Portici Ceramics

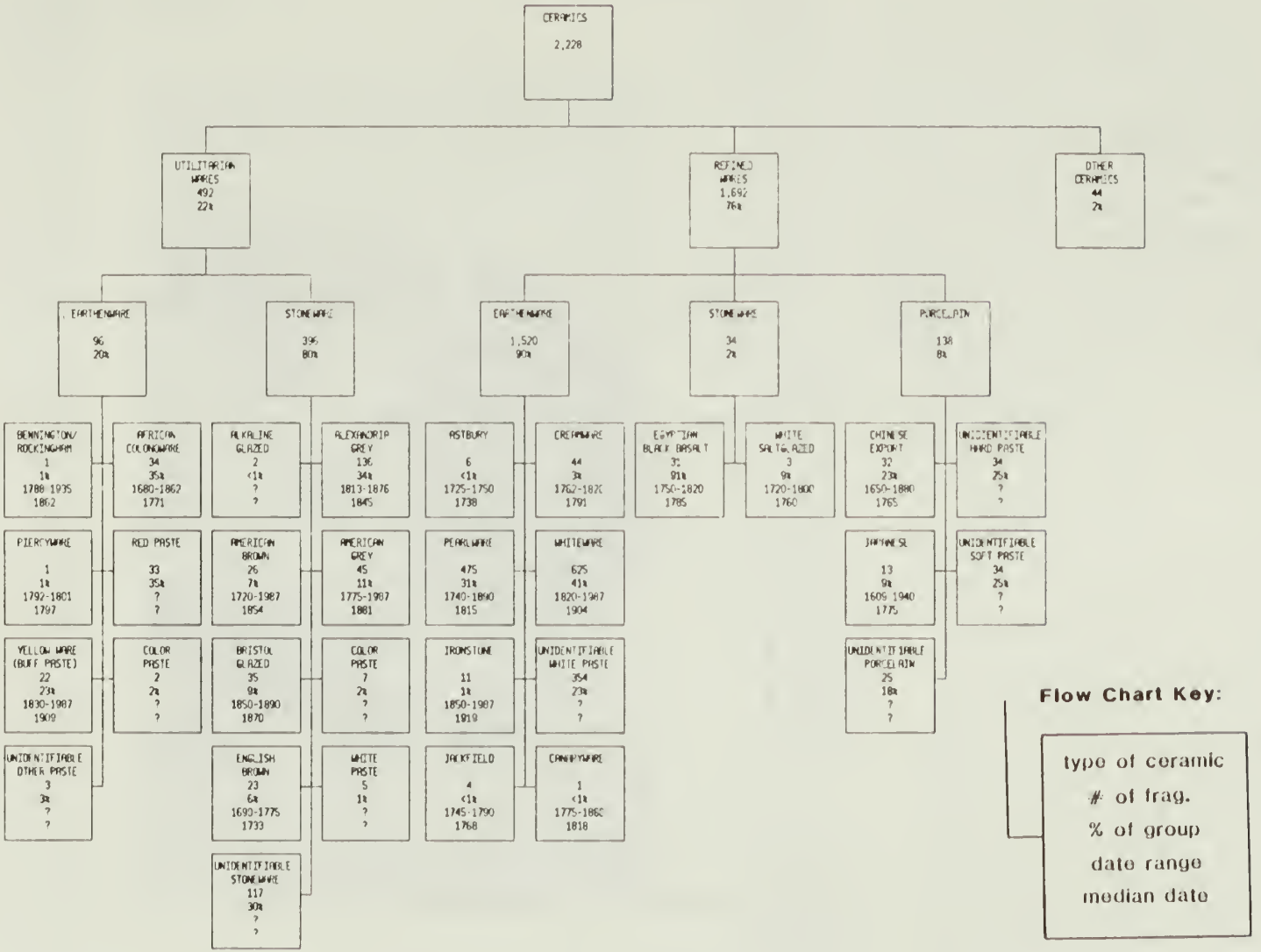

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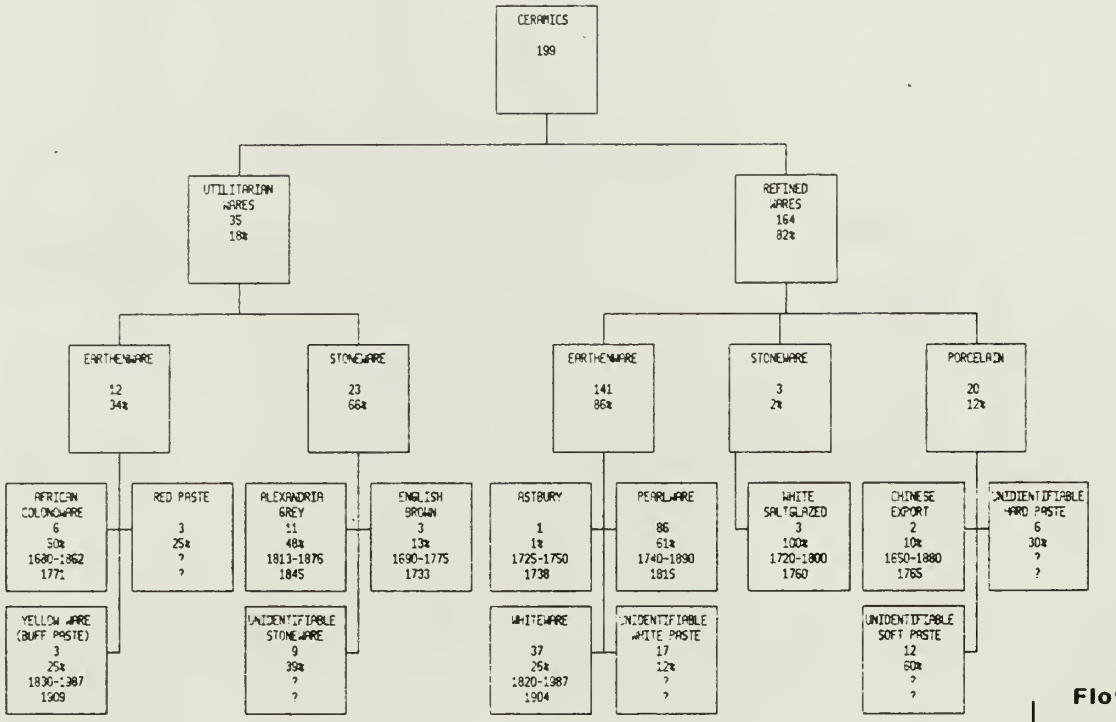
TABLE 6.7 Portici Ceramics Slave-use



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Six percent of the earthenwares recovered from the cellar quarters are annular decorated; seven percent are painted in monochrome and polychrome designs; 24% are edge decorated; and 18% transfer printed. The remaining 44% are undecorated fragments (Table 6.8). There is a homogeneity exhibited by these decorated ceramics which was not encountered at the Structure 1 slave quarters. This may indicate a good portion of these ceramics were transferred from the planter household above as new and more fashionable wares were purchased. Most of the matching services are blue and green, shell-edged flatwares. The complete historical development of this pattern is represented in the collection, suggesting broken or damaged edge decorated wares were replaced over time. When the transition was made to the more fashionable transfer printed wares, the remaining shell- edged vessels, or at least some portion, may have been sent "downstairs."

Household slavery entwined the lives of the domestic servants and the planters. The privileged position of the household servant, as it was regarded during the period (Mullin 1979:62-63), may have fostered the desire to emulate the planter by acquiring similar ceramics (Figure 34).

Figure 34 Edge-decorated and transfer-printed ceramic flatwares and a painted holloware vessel (center) associated with Portici's domestic slaves.

TABLE 6.8 PORTICI CERAMICS: FORM AND DECORATION
SLAVE USE

CERAMIC	FORM		DECORATION						
			TRANSFER	SHELL-EDGE	ANNULAR	HAND PT.	UNDEC.	OTHER	TOTAL
PEARLWARE	HOLLOWARE	#	8	3	5	2	14	2	34
		%	23.5%	8.8%	14.7%	5.9%	41.2%	5.9%	
	FLATWARE	#	3	25	0	0	13	0	41
		%	7.3%	61.0%	0.0%	0.0%	31.7%	0.0%	
	UNDET.	#	1	1	0	4	4	1	11
		%	9.1%	9.1%	0.0%	36.4%	36.4%	9.1%	
	TOTAL	#	12	29	5	6	31	3	86
		%	14.0%	33.7%	5.8%	7.0%	36.0%	3.5%	
YELLOW WARE	HOLLOWARE	#	0	0	0	0	3	0	3
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
WHITEWARE	HOLLOWARE	#	7	0	2	3	19	0	31
		%	22.6%	0.0%	6.5%	9.7%	61.3%	0.0%	
	FLATWARE	#	3	1	0	0	2	0	6
		%	50.0%	16.7%	0.0%	0.0%	33.3%	0.0%	
	TOTAL	#	10	1	2	3	21	0	37
		%	27.0%	2.7%	5.4%	8.1%	56.8%	0.0%	
TOTAL			22	30	7	9	55	3	126
			17.5%	23.8%	5.6%	7.1%	43.7%	2.4%	

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Utilitarian ceramics form 22% of the slave quarter assemblage and include stoneware (66%), and earthenware (34%) vessels. Thirty-nine percent of the utilitarian stoneware is unidentifiable. American-made Alexandria gray stonewares represent 48% of the collection and English brown stoneware forms 13%. The utilitarian earthenwares appear to be of American origin. African colonoware represents 50% of this group and was probably locally made. Local in this case refers to Prince William County or adjacent counties and not necessarily to the plantation itself. The ceramics forming the remained of this functional category include 25% yellow wares and 25% red-pasted wares.

The frequency of holloware to flatware recovered in the cellar quarters is similar to the ratio exhibited at Structure 1. Hollow forms constitute 70% of the vessels while flat forms represent 24%. Six percent of the ceramics are of undetermined vessel form. This three-to-one ratio of holloware to flatware is similar to the frequency observed at Structure 1. This may suggest that one-pot meals and practical ceramic vessels were also preferred by the domestic slaves. A second possibility is that flatware vessels were highly regarded by these individuals. This being the case, these items may have been removed by the residents when they departed.

Finally, 146 ceramic fragments of the total domestic slave assemblage were used to calculate a mean ceramic date of circa 1838 for the cellar quarters. This date predates the occupational dates of both the mansion house and Structure 1 by approximately 20 years. The years following Alfred Ball's death in 1853 witnessed a sharp decline in the number of slaves at Portici plantation. The figure plunged from 50 slaves to less then one dozen after the Lewises assumed control of the property. This decrease may be reflected in the archeological record of the cellar quarters through the earlier occupation date.

The ceramic occupational date may also reflect that a higher proportion of older, outdated ceramics were transferred to these slaves from the planter. These "inherited" services may not have been as liberally supplemented with contemporary pieces as the Structure 1 assemblage. However, the presence of numerous heterogeneous transfer printed ceramics in this collection suggests otherwise. Supplemental contemporary ceramics, whether matched or mismatched, may have been highly prized by the domestic servants. Considered valuable, they may have been removed along with other possessions when the house was evacuated in 1861. This latter scenario would effectively skew the mean ceramic date for this area, assuming nothing was discarded through breakage during this period.

A total of 1,963 ceramic fragments are associated with the planter family/military occupation of Portici. The collection includes 75% earthenwares, 19% stonewares, and six percent porcelain. Seventy-eight percent of these fragments are refined table and tea wares. Utilitarian wares constitute the remaining 22% (Table 6.9).

Refined ceramics are dominated by earthenwares which form 90% of the total, porcelain eight percent, and stoneware, two percent. Twenty-four percent of these refined earthenwares are unidentifiable white-pasted wares. The other table wares include whiteware representing 43% of the group, pearlware 28%, creamware three percent, ironstone one percent, and less than one percent of the collection is represented by canaryware, Astburyware, and Jackfield. Refined stonewares are represented by two Egyptian Black basalt vessels. These objects were probably pieces of an heirloom tea service.

Porcelains from the mansion house include Chinese export which constitutes 25% of the collection, unidentified soft paste forms 19%, and Japanese porcelain 11%. The Chinese and Japanese porcelains probably represent ornamental, formal items retained by the family.

Three percent of the earthenwares (creamware, pearlware, whiteware, ironstone, and yellow ware) associated with the planter/military occupation are annular decorated. Seven percent are painted in monochrome and polychrome designs; six percent are shell edge-decorated; 21% are transfer printed, and nine percent exhibit other forms of embellishment. Undecorated earthenwares represent 55% of the assemblage (Table 6.10).

Utilitarian ceramics include earthenware (19%),and stoneware (81%). The utilitarian earthenwares are comprised of 36% red-pasted wares; 33% African colonoware (recovered exclusively from the north addition); and 23% yellow ware. The remaining fragments include two percent color-paste earthenware, one percent Piercyware, and one percent Bennington/Rockingham. Four percent of the earthenwares are unidentifiable.

Utilitarian stonewares consist primarily of American-manufactured wares. Alexandria gray stonewares represent 36% of the collection, 13% are American gray stonewares, ten percent Bristol-glazed stoneware, seven percent American brown stoneware, and less then one percent are alkaline-glazed wares. Imported English brown stoneware comprises six percent of the assemblage and unidentifiable stoneware fragments form 25%. Two percent unidentified color paste and one percent unidentified white-paste stonewares complete the inventory.

TABLE 6.9 Portici Ceramics **Planter/military-use**

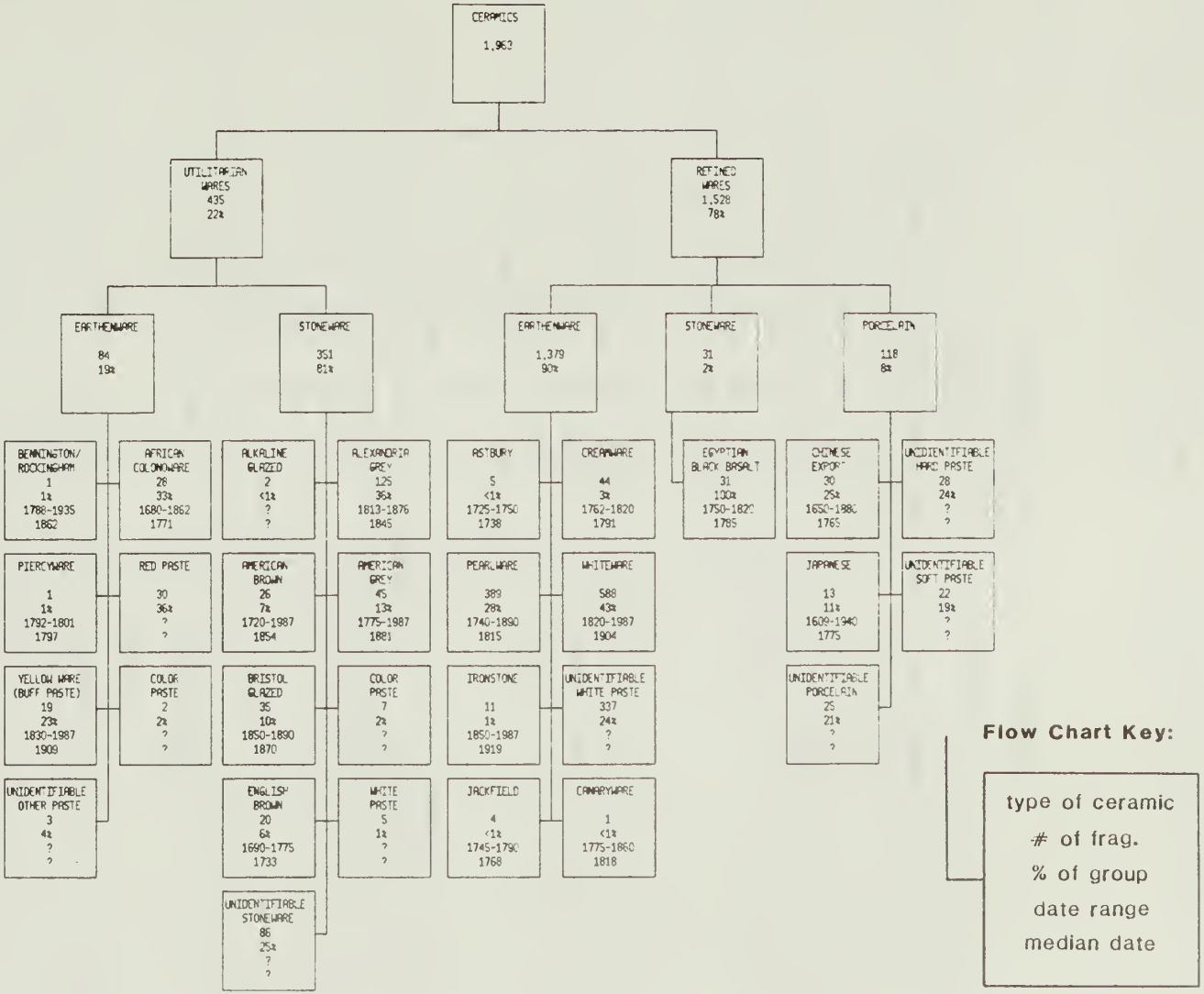

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TABLE 6.10 "PORTICI" CERAMICS: FORM AND DECORATION
LEWIS/MILITARY USE

CERAMIC	FORM		DECORATION						
			TRANSFER	SHELL-EDGE	ANNULAR	HAND PT.	UNDEC.	OTHER	TOTAL
CREAMWARE	HOLLOWARE	#	0	0	0	0	44	0	44
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
PEARLWARE	HOLLOWARE	#	21	1	10	30	107	46	215
		%	9.8%	0.5%	4.7%	14.0%	49.8%	21.4%	
	FLATWARE	#	12	12	0	7	20	2	53
		%	22.6%	22.6%	0.0%	13.2%	37.7%	3.8%	
	UNDET.	#	15	23	2	6	56	19	121
		%	12.4%	19.0%	1.7%	5.0%	46.3%	15.7%	
	TOTAL	#	48	36	12	43	183	67	389
		%	12.3%	9.3%	3.1%	11.1%	47.0%	17.2%	
IRONSTONE	HOLLOWARE	#	0	0	0	2	1	0	3
		%	0.0%	0.0%	0.0%	66.7%	33.3%	0.0%	
	FLATWARE	#	1	0	0	0	1	0	2
		%	50.0%	0.0%	0.0%	0.0%	50.0%	0.0%	
	UNDET.	#	1	0	0	0	4	1	6
		%	16.7%	0.0%	0.0%	0.0%	66.7%	16.7%	
	TOTAL	#	2	0	0	2	6	1	11
		%	18.2%	0.0%	0.0%	18.2%	54.5%	9.1%	
YELLOW WARE	HOLLOWARE	#	0	0	2	1	8	1	12
		%	0.0%	0.0%	16.7%	8.3%	66.7%	8.3%	
	UNDET.	#	0	0	0	0	7	0	7
		%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	
	TOTAL	#	0	0	2	1	15	1	19
		%	0.0%	0.0%	10.5%	5.3%	78.9%	5.3%	
WHITEWARE	HOLLOWARE	#	64	1	17	7	231	18	338
		%	18.9%	0.3%	5.0%	2.1%	68.3%	5.3%	
	FLATWARE	#	76	17	0	2	47	1	143
		%	53.1%	11.9%	0.0%	1.4%	32.9%	0.7%	
	UNDET.	#	33	12	0	6	55	1	107
		%	30.8%	11.2%	0.0%	5.6%	51.4%	0.9%	
	TOTAL	#	173	30	17	15	333	20	588
		%	29.4%	5.1%	2.9%	2.6%	56.6%	3.4%	
TOTAL			223	66	31	61	581	89	1051
			21.2%	6.3%	2.9%	5.8%	55.3%	8.5%	

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The mean ceramic date calculated from 1,388 fragments in the total ceramic assemblage is circa 1857. This date accurately reflects the Lewis occupation of Portici despite the removal of the family's possessions.

Summary

Ceramics recovered from Structure 1 at Pohoke suggest a mean construction date of circa 1823 and a mean occupational date of circa 1854 for this dwelling. The high frequency of refined undecorated wares contemporary with the occupation of Structure 1 and the plantation mansion house at Portici, indicate these wares were purchased for or by the slaves. Heterogeneous patterns and designs suggest the decorated vessels were purchased for or by the slaves as odd lots or as individual pieces and not as sets. It appears decorated vessels were not transferred from the planter's household. Only two vessels recovered at Structure 1 match patterns found at the mansion house.

The low frequency of utilitarian wares associated with this slave quarter suggest that the processing and storage of foods was not conducted here. It may also explain the high percent of colorless container glass associated with this structure. Glass easily replaces stoneware for storing, preserving, pickling, and other tasks for which earthenwares are unsuited.

A general trend reflecting the upward mobility of the plantation residents was reflected in the ceramics associated with Structure 2. Fragments recovered from distinct fill episodes produced generally earlier mean ceramic dates in erratic sequences. These earlier date ranges may indicate the ceramics used by the first occupants of the slave quarter were transferred from the Ball family when they moved to their new manor house. Eventually, as the plantation prospered, sets of undecorated ceramics were obtained for the slaves. The fluctuation in the dates of the fill sequences may reflect different residential periods of slave families or groups.

The speculated pattern of evolving prosperity is reinforced by the utilitarian wares. African colonoware dominates this functional category. Very little of this ware was found at Structure 1. The higher frequency of colonoware in the refuse pit and the high frequency of utilitarian stonewares and container glass at Structure 1 suggest a gradual displacement of the old, cottage-fashioned wares with commercially manufactured items.

The recovery of fragments which matched the Egyptian black basalt teaware vessel and the Japanese Imari holloware form provided additional confirmation

associating the refuse in Structure 2 with the occupants of Structure 1. The ratio of hollow form vessels to flatwares is approximately three-to-one, at both Structure 1 and Structure 2. This frequency conforms to nineteenth-century slave associated assemblages reported elsewhere. It also suggests one-pot meals and a preference for practical ceramic vessels.

The proximity of the domestic slaves at Portici to the planter family is reflected in the ceramic assemblage. Higher percentages of homogeneous patterns, particularly on flatware, appears to emulate higher status ceramic use. Decorative patterns recovered from the cellar quarters match patterns associated with the planter assemblage.

The cellar quarters mean ceramic occupation date of circa 1838 postdates Structure 1's assemblage by approximately 20 years. This may reflect a decline in the number of plantation slaves over the years following Alfred Ball's death. It may also suggest that the more contemporary ceramics were valued possessions evacuated with the cellar occupants on the eve of the First Battle of Manassas. A removal of this sort would effectively distort the date.

The frequency of hollow to flat forms from the cellar slave quarters is similar to the ratio at Structure 1. This may suggest the domestic slaves also consumed one-pot meals and preferred more practical vessels. It may also infer that flat form vessels were more highly prized and thus were removed by the quarters residents when they abandoned the house. This theory is reinforced by the diary of Charles Carroll Gray. He noted the conspicuous absence of tableware which forced the inmates of the Confederate field hospital at Portici to dine from roofing shingles (Gray 1861:22).

The ceramic assemblage associated with the planter occupation of Portici is not an accurate reflection of the occupation because the ceramics were removed by the planter's family when they fled the property. The removal of the planter's ceramic services, and all other portable possessions, has seriously distorted the archeological record. The assemblage is atypically dominated by utilitarian wares while the frequency of hollow to flat forms is closer to lower status slave occupations. To obtain a more accurate reflection of Portici's planter ceramic assemblage would entail examining an antebellum planter refuse area.

7 TOBACCO AND TOBACCO PIPES

A Brief History

Once European colonists were introduced to tobacco by Native Americans during the early seventeenth century, they became increasingly fond of the plant. Tobacco achieved status both as a highly profitable cash crop and a social pastime. Colonial Americans came to consume a great deal of "sot weed" in numerous manners and devices, depending on their social and economic standing (Tunis 1965:52).

For a long period in American history, tobacco was the only crop of many southern planters. Tobacco was traded with English factors for European luxury and staple items. In North America it was often traded for food. At one point it became necessary to require planters to grow other crops so that their dependents would not starve and the soil could replenish lost nutrients. Nevertheless, tobacco remained "king" for hundreds of southern plantations and smaller farmsteads.

Planters harvested their tobacco every season after the plants had slightly withered and dried in the sun. The leaves and part of the stems were collected and hung to dry from the rafters of tobacco barns. These structures were well-ventilated to allow the tobacco leaves to dry completely.

After the tobacco was cured, 12 or more leaves were tied into fan-shaped bundles called "hands" (Tunis 1965:52). These were carefully flattened and spread evenly before being squeezed into hogsheads for sale. Hogsheads were huge wooden casks standing four feet high and two-and-one-half feet in diameter, weighing between 1,000 and 1,300 pounds when loaded with tobacco (Isaac 1982:27).

Hogshead casks of tobacco were transported to public warehouses for certification as "merchantable." Certificates known as "tobacco notes" were issued in exchange for the tobacco (Isaac 1982:27). Planters often shipped their hogsheads directly to Glasgow trading houses, to repay the preceding years debts (Isaac 1982:29). Planters usually borrowed against their next tobacco crop, and quite often went into debt because of poor yields or low tobacco prices.

When tobacco made its way to the tobacconist's shop, the tobacco hands were untied and the central stem cut from each leaf. These stems were ground into the least expensive snuff. The leaves were moistened and stacked in piles to

ferment for several weeks. The leaves were often flavored at this stage. Molasses was added to pipe and chewing tobacco. Often vanilla beans or licorice were used to produce subtle, distinctive tobaccos (Tunis 1965:53).

When the leaves were partially dried, they were twisted into "thread" on a tobacco wheel. This resulted in a finger-thick, lumpy strand which could be cut and sold in various lengths (Tunis 1965:53). Another form was known as "plug" tobacco. Plug tobacco was formed by pushing the tobacco into a hole in the end of a log with a maul and wooden plunger. Honey or molasses was added to plug tobacco as flavoring and to help retain the compacted shape. The plug was retrieved by splitting the log (Tunis 1965:53). Thread and plug tobacco could be chewed or smoked in pipes.

The most expensive type of tobacco was "shag" pipe tobacco. This was made by cutting high quality leaves into narrow strips. These strips were packaged in paper cones and sealed with wax (Tunis 1965:53). This tobacco was often custom flavored to suit any client's tastes.

Shag, thread, and plug tobacco were smoked in several different types of pipes. During the eighteenth and nineteenth centuries, corn cob, wood, metal, gutta percha, and clay pipes were available to suit every economic class. The pipes were packed with tobacco and lighted with candle flame or hot embers held in smoking tongs. The high tar content of tobacco regularly clogged the pipe stems. Single-piece kaolin pipes were generally placed in the hearth fire overnight to burn away the tar residue (Tunis 1965:53). Corn cob and clay pipes were designed for use with a replaceable reed stem for this reason.

Cylindrical rolls of cured tobacco leaves, known as "segars" or cigars first became popular after 1762. This popularity stemmed from Israel Putnam's importation of cigars from La Habana, Cuba (Tunis 1965:53). Tobacconist shops in North America soon began producing cigars from the lower quality leaves for the less-well- to-do clients. The first cigar factory opened in Connecticut in 1812, where women rolled up to 1,500 cigars daily (Tunis 1965:53).

Snuff tobacco was also popular with both genders of all social classes. Tobacco stems and leaves were finely ground in the tobacconist's mortar. Snuff tobaccos were often extended and flavored with various substances. Scotch-brand snuff added lime to moisten the tobacco. Refined potash and hellebore, a poisonous insecticide, were used as flavoring in the more elegant snuffs. Lemon verbena, salt, bergamot, and attar of roses were also used to flavor and scent the ground tobacco (Tunis 1965:54).

Snuff tobacco was generally sold in earthenware crocks. Scotch snuff was packed in cow bladders or the smaller esophagi sections to help retain moisture. These packages were known as "weasands" (Tunis 1965:53).

Snuff was carried in small, ornate boxes or bottles, and shared amongst gentlefolk. A pinch of snuff was placed on either the back of the hand or directly in the nose and inhaled. This resulted in a violent sneeze, for which a companion would offer God's blessing to prevent malevolent vapors from entering through the flaring nostrils.

Snuff tobacco could also be used as "dip." The tobacco used for dip was typically of lesser quality than that which was inhaled. The more common folk would pull their lower lip back and pour the snuff between their lip and gum. The tobacco was then rubbed into the gums with a snuff stick. This stick was usually a small twig or cut wooden stick that was easily discarded and replaced (Tunis 1965:53).

Tobacco knew no social class boundaries. Gentlefolk, common folk, indentured servants, Native Americans, and African-Americans enjoyed tobacco in its various forms. Archeologically, tobacco use is typically represented by the fragments of ceramic, metal, and gutta percha smoking pipes, and occasionally, by snuff boxes. The organic nature of cigars, corn cob and wooden pipes does not encourage survival in the acidic soils of the Virginia Piedmont.

White Clay Tobacco Pipes

When Europeans arrived in North America, they discovered the resident Native Americans smoking harsh native tobacco in small clay, and sometimes soft stone, pipes. These tobacco pipes were copied and manufactured by Europeans by the 1570s (Noel Hume 1969:296). The hardness achieved during kiln firing enabled white clay pipes to be one of the more enduring of all historic artifacts.

Archeologically, white clay pipes are valuable for several reasons. First, the manufacture, importation, use, and subsequent disposal of pipes all occur in relatively short time periods. Second, the shape of the pipe bowls evolved through time and can be dated. Third, white clay pipes were inexpensive and available to all economic levels of society. In addition, these pipes are extremely durable and can survive in vast quantities archeologically (Noel Hume 1969:296).

As white clay pipe fragments survive so well, they have long held the attention of historical archeologists. This prolonged focus has generated a series

of dating methodologies for white clay pipes. The dating can be accomplished in several ways; dates can be obtained from bowl styles, decorations, makers marks, and from the measurement of pipe stem bore diameters. A combination of all these attributes is the optimum in attaining a reliable date.

White clay pipes were made in great quantities in England, France, and the Netherlands during the late sixteenth through the nineteenth century (Noel Hume 1969:302). Pipes were also manufactured in the United States during the nineteenth and early twentieth centuries. Through time, the form changed from the late-sixteenth century short-stemmed, bulbous-bowled pipes to the delicate, long-stemmed "churchwarden" pipes of the eighteenth century. These changes probably occurred because the early short-stemmed pipes caused smoking to be a somewhat acrid and harsh experience. Indeed, the seventeenth-century term for smoking from these short, bulbous-bowled pipes was "drinking" because the method of inhaling was a hurried gulping of the smoke (Deetz 1977:18). Tobacco prices were high during this time period and smoking was an expensive habit. This may have encouraged tobacco drinking to ensure the most pleasure for the money.

Whatever the form, these pipes were made from white kaolin or ball clay. White kaolin clay is a very plastic secondary clay, which is free of discoloring iron oxides (Charles 1983:22). This white clay was sorted to remove any impurities, and rolled into balls for transport. The principal deposits of this clay are found in Devon and Dorset, in England, and in Tennessee and Kentucky in North America.

In the pipe factory, white clay was initially molded into a preform pipe shape. A wire "piercer" was inserted into the long stem of the "tadpole" preform, with care taken not to punch through the sides (Omwake 1956:2). With the wire still in place, the pipe was placed in a two-part hinged iron mold. The mold was then placed into an iron vise with a lever. This lever contained a cone-shaped attachment of iron which created the hollow bowl as the lever was depressed. All the superfluous clay was forced out a mold hole and the small ridges of excess clay were trimmed off after the mold was opened. The wire was removed as the final step before firing (Hughes 1954:45).

The completed white clay pipes were stacked as compactly as possible into special kiln saggars. Saggars are fireclay vessels specially shaped to protect pipes and other ceramics from direct contact with the kiln fires and gases (Hughes 1968:134). The term "saggar" is thought to be a corruption of the Old English phrase "safe-guard" (Charles 1983:223).

White clay pipes were sometimes decorated with repetitive patterns or stamped with pipemaker's initials. Decorations could be applied either during the leather-hard (greenware) stage or incorporated into the relief design of the hinged mold. Only the Dutch white clay pipes were sometimes burnished to a glossy sheen before decorations were applied.

The various decorative designs on the pipe bowls can also indicate the point of origin and the date of manufacture. Maker's marks on bowls can be traced to the maker through the records kept by pipemaker guilds (see Alexander 1979; Omwake 1958; Oswald 1975). These marks and their placement on the pipe also changed through time. The markings became more elaborate as time passed. Eventually, there was decoration on both pipe stem and bowl. Often coats-of-arms were stamped on the pipes, indicating more exactly their date and place of origin.

Pipemakers often stamped their wares with either initials or surnames. The guild records could provide dates of manufacture as well as location. Unfortunately for the archeologist, sons often followed their fathers as pipemakers and stamped identical initials. Initials can easily span a century, giving misleading dates.

After firing, the white clay pipes were shipped in barrels and sold by the gross (Noel Hume 1969:296). The large number of European white clay pipes distributed in North America could conceivably have been in such a surplus that the pipes actually reached consumers long after their manufacture and importation. This time lag was more likely to occur in isolated frontier areas than in urban settings.

In 1951, Adrian Oswald published his study of the evolution of the English white clay pipe bowl forms. Omwake (1958) also felt that the changes in eighteenth century bowl shapes were so distinctive that each type could be recognized and placed in an approximate time bracket. Unfortunately, in the nineteenth century the bowl form became somewhat standardized and therefore not as readily datable.

These methods of analyzing bowl shape and elaboration of design often provide the archeologist with a date of manufacture. This date, however, is at best vague. This is due to several factors. The rate of changing bowl shapes and designs differs between geographic regions. The ornamentation may be in part due to changes in fashion. The amount and form of designs were, however, largely a personal choice made by the pipemakers.

In response to these dating problems, J.C. Harrington introduced a technique in 1951, which caused a great deal of debate in the archeological

community and generated research for several decades. Harrington observed a correlation between the age of the white clay pipe and its stem hole or bore diameter. The pipe stem bore diameters were measured using a set of drill bits in increments from 4/64- to 9/64- of one-inch. Harrington attributed five successive time periods to these increments spanning circa 1620 through circa 1800 (Harrington 1954).

Harrington tested his hypothesis by collecting pipe stem fragments from various sites, noting that "to the statistically minded, this [sample size] will seem too small to provide definite conclusions" (Harrington 1954:63). Audrey Noel Hume agreed and calculated that at least 900 to 1,000 pipe stem fragments were necessary to obtain a statistically meaningful date range (Noel Hume 1963). Harrington only measured a total of 330 pipe stem fragments or approximately 66 fragments for each of his five date ranges (Harrington 1954:63). Noel Hume also adds the criticism that in Harrington's bar graph the "range of acceptable accuracy seems to be restricted to the period from circa 1680 to circa 1760, with the probability of error increasing rapidly as one moves away from that bracket in either direction" (Noel Hume 1969:300).

In 1962, Lewis Binford refined the Harrington method. Binford observed that Harrington's method was unlikely to have any archeological evidence correspond exactly to his date ranges. It was also difficult to arrive at an accurate age estimate when comparing Harrington's percentages to percentages obtained from other archeological sites. Binford presented a straight line regression formula with information from Harrington's work. The formula allowed actual pipe stem numbers to be inserted. As a result, mean dates were produced for the samples. The straight line regression formula provides a mean date for a group of pipe stem fragments by employing the following formula: $Y = 1931.85 - 38.26X$. The Y represents the group mean date; 1931.85 is the date when the stem hole would theoretically become so small that it ceased to exist; 38.26 is the number of years between each increment as it decreases in size; and X represents the mean bore hole diameter for the entire group (Noel Hume 1969:299).

While Binford improved on Harrington's initial method, there are still limitations. There must be an adequate sample size, and the sample must be randomly deposited throughout the period in question (Binford 1978:66-67). A sudden increase in population during a period would be reflected in the pipe stem accumulation. The date would reflect the increase and not the entire period. In reviewing these two methods, Walker (1965:61) made several relevant observations. The Harrington method provided time brackets for a site, while the Binford formula provided a mean date. The Harrington method with its percentages can also show two successive occupations of a site.

Like most techniques for dating archeological sites, pipe stem dating methods are not meant to provide a separate and independent date range for a site. Rather, they should be used along with other dating techniques such as historic documentation and ceramic assemblages. Dates obtained from an adequate sample of pipe stems would serve to confirm or contest other information. Harrington himself pointed out that "common sense will always have to be used in applying this dating device to a series of stem fragments" (Harrington 1954:64).

North American-made Clay Tobacco Pipes

White clay pipes were undoubtedly the most numerous of all smoking devices used from the seventeenth century through the nineteenth century. Mass manufacture and exportation from England and the Netherlands, as well as the pipes created in North America, account for this large volume of white clay pipes. There were, however, other materials from which smoking pipes could be fashioned. Corn cobs, wood, and local clays were utilized to create pipes for people who had limited access to white clay pipes. While white clay pipes were called "Negro-pipes" during the nineteenth century, it is possible that not every slave, or even free blacks or whites wanted to or could obtain white clay pipes (Otto 1984:76).

North American-made clay pipes exhibit the durability of white clay pipes. These pipes were fashioned from local clay sources which could produce a variety of colors based on the mineral content. In the Piedmont area of Virginia, the iron-rich clay typically produces red, orange, and brown-hued pipes. These clay pipes were usually fired in kilns to either earthenware or stoneware hardness.

The clay pipes made in North American differ from white clay pipes in form. Only pipe bowls with short stems were manufactured. A hollow reed was inserted at the terminus of the short stem. These pipes presented a more pleasant option for the tobacco connoisseur, because the used reed stem could be regularly and easily replaced. The reed stem also provided a cooler, smoother, smoke than the pipes made entirely from clay.

The pipemaker could fashion his wares in one of two ways. A lead mold set in wood could be made and used, just as the Europeans did for white clay pipes (Sudbury 1977:1). The molded pipes were often highly decorated and show evidence of seams where the mold pieces met. Pipes were also molded by hand. In this process the clay is formed into the desired shape by coiling or, simply modeling the clay. Both types of pipes could be burnished with a stone or whittled by bone or wooden sticks. These applications produced attractive sheens and smooth finishes on the pipe exteriors. The hand-made pipes were sometimes decorated by incising punctate or rouletted designs on the pipe bowl exterior.

The short-stemmed or "stub-stemmed" pipes were a design copied from Native Americans. It has been suggested that the reed stem pipe design was a "natural adaptation by a resourceful local maker," who knew first-hand the difficulty involved with manufacturing long-stemmed pipes (Walker 1975:115).

It seems Europeans began making pipes in North America almost as soon as they were introduced to tobacco. Capt. John Smith notes the presence of tobacco pipemakers at Jamestown during the early seventeenth century (Noel Hume 1963:212). These pipes made from local Virginia clays are also found at other seventeenth century plantations along the Chesapeake Bay.

In seventeenth-century Virginia, Native Americans, Europeans, and Africans resided concurrently. It is likely that these cultures exchanged information, traditions, and technologies. It would not be surprising to find evidence of this melding of techniques, styles, form, and decoration, on North American clay tobacco pipes. This exchange would apply to other tangible material aspects of their cultures as well.

Clay tobacco pipe manufacture in America filled the immediate demands of individual smokers. Indentured servants, African slaves, and landed settlers could often more readily manufacture their own pipes from local clay deposits than obtain them from Europe. Tobacco pipe making soon developed into a "home industry" of sorts in colonial North America.

Eventually, this home industry had become a source of income for enterprising individuals. By the beginning of the nineteenth century, several pipemakers plied their trades in Virginia. Randolph and Washington Counties supported several pipe makers by 1800, and Henrico County had a resident pipe manufacturer by 1820 (Sudbury 1977:2).

The Pamplin area, in Appomattox County, Virginia, claims a home pipe industry from as early as circa 1740. There is no evidence to confirm this local tradition (Hamilton 1972). During the 1860s, Pamplin contained numerous home pipe makers who sold their wares through store agents (Sudbury 1977:22). A local factory boxed and sold the sometimes highly decorated, molded Pamplin pipes. At the turn of the twentieth century, Pamplin was still selling a wide variety of decorated reed stem pipes. The factory was no longer able to support itself after public demand shifted to cigarettes during the 1930s (Sudbury 1977:23).

Analysis

Tobacco pipe fragments recovered from archeological excavations at Pohoke and Portici were first sorted by material into white clay and North American-made clay pipes (Figures 35 and 36). Following this initial sort, physical attributes were examined.

Kaolin pipe stem fragments were measured with standard drill bits in increments ranging from 4/64- through 9/64- of one-inch. This data was inserted into the Binford formula and a mean date was calculated for the entire pipe collection. Decoration, when present, was next employed as a possible dating tool.

North American-made clay pipes were examined to determine the method of manufacture, either hand-made or molded. Finally, any surface treatment, such as whittling, burnishing, or incised decoration, was considered.

Pohoke

A total of 157 white clay tobacco pipe fragments were recovered from Pohoke. This figure represents one percent of the total artifacts recovered. Ninety-nine of the pipe fragments are pipe stems. This small quantity prohibited a meaningful application of the Binford formula. Tobacco pipe fragments from Pohoke were analyzed in two assemblages, those associated with the Structure 1 (slave quarters), and pipes recovered from the Structure 2 (refuse pit). Pipe fragments retrieved during the surface collection are not included in these discussions.

Only 29 white clay pipe fragments were recovered from the Structure 1 (slave quarters). Nineteen of these are pipe stems, the remaining ten fragments are tiny pieces of pipe bowls. The sample and fragment size are too small to provide a mean date.

A total of 124 white clay pipe fragments were found in the Structure 2 (slave refuse pit). Sixty of these fragments are pipe stems. The remaining 64 pieces are small pipe bowl fragments with no distinguishing datable features present.

Twelve North American-made tobacco pipe fragments were recovered. This represents less than one percent of the total artifacts found at Pohoke. Structure 1, the nineteenth-century slave quarters, contained three red-paste earthenware pipe fragments and one fragment of a low-fired stoneware pipe. The red-paste

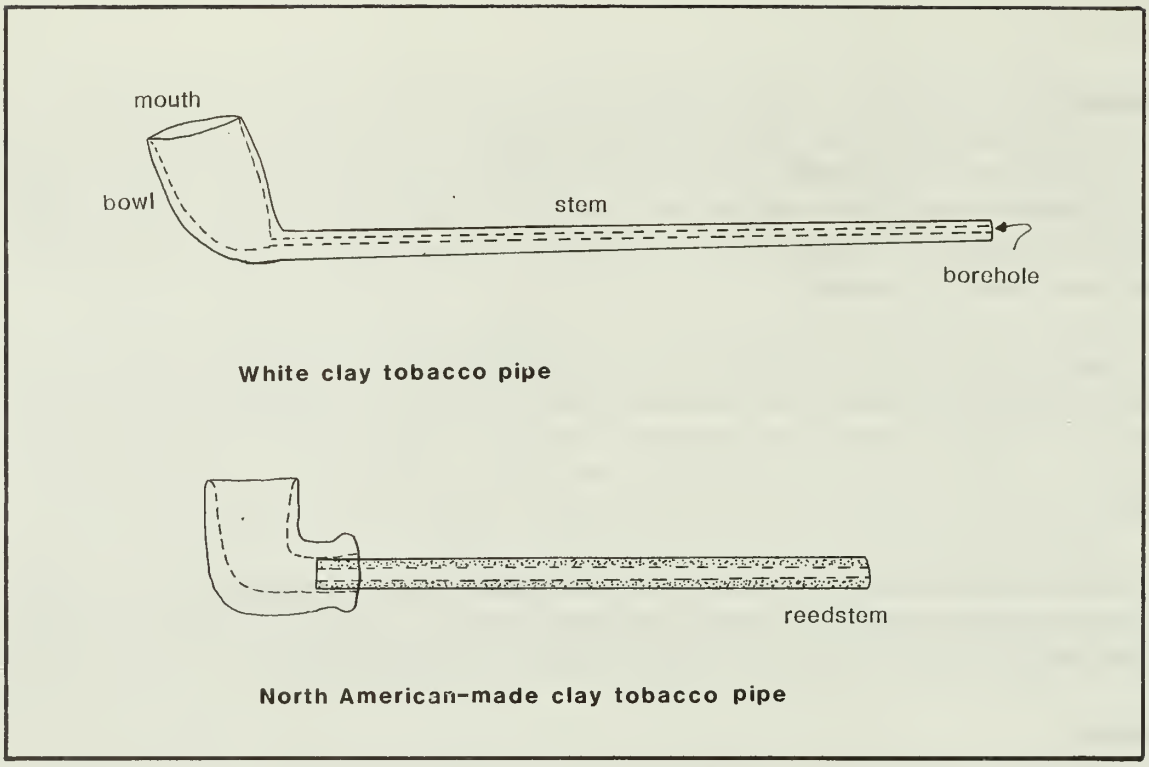


Figure 35 White clay and North American-made tobacco pipe morphology.

Figure 36 North American-made clay tobacco pipe bowls (top) and a nineteenth-century "Negro pipe" stem and bowl fragment (bottom) from Pohoke.

pipe fragments represent at least two short-stemmed reed tobacco pipes. These two decorated pipes were fashioned by hand. They may have been made on this plantation, though there is no evidence to date which supports this speculation. It is probable that a local potter fashioned these pipes, along with similar earthenware vessels recovered at this site. The clay body of these objects visually appears very similar.

The low-fired stoneware pipe was mold-made, producing a thin-walled pipe bowl. The mold seam has been incorporated into a simple vertical design around the bowl exterior. The pipe is a dull grey color and is unglazed. This stoneware pipe was most likely purchased from a local merchant.

Structure 2, the slave refuse pit, contained eight tobacco pipe fragments. Two of these fragments are from a single earthenware pipe, with an incised "zig-zag" decoration near the exterior bowl rim. A colorless leadglaze was applied over the red-paste body. This pipe was created from more refined clay and was most likely purchased from a local store rather than made at the plantation.

The six remaining pipe fragments represent a minimum of four distinct tobacco pipes. Two of these pipes are molded, with thin, undecorated walls exhibiting a more refined appearance. The two other pipes are hand-made, the exterior smoothed by sticks or bone tools.

One of the hand-made pipe bowls is embellished with two rows of rouletted decoration encircling the exterior bowl rim. The entire pipe bowl, interior and exterior, was intentionally blackened in an oxygen-poor kiln environment. The clay appears to be from a different source than the other pipes recovered in this assemblage. This may be the result of different clay mixing techniques. The rouletted design is also typically seen on pipes made by Europeans and Africans (Emerson 1988). A chemical analysis of the clay composition might determine the clay source. This, in turn, might suggest information concerning the ethnicity of the pipemaker.

The small number of tobacco pipes recovered suggests some interesting information concerning the recreational pursuits of these Portici slaves. Tobacco and tobacco pipes were generally considered luxury items and as such, were not normally provided by the planter (Otto 1984:76). Slaves, therefore, probably had to purvey their own supplies of sotweed and its associated paraphernalia. The small number of white clay pipe fragments recovered archeologically may reflect an inability to, or a decision not to, purchase either the pipes or the smoking tobacco. The presence of several North American-made pipes suggests that pipes may have been made, or purchased from local vendors to supplement sporadically

purchased commercial pipes. Corn cob pipes may have been used by these individuals as well. Corn was a crop commonly grown at Portici and would have provided a large reserve to draw upon. This type of pipe, however, seldom survives in the archeological record.

The slaves may also have procured other varieties of tobacco, such as snuff, cigars, or chewing tobacco. The recovery of some other luxury items typically purchased by slaves such as glass beads, ornamental and decorative glass, and liquor bottles suggests that they had the means to purchase commercial tobacco and tobacco pipes if desired.

Portici

Twenty white clay tobacco pipe fragments were recovered from the site of Portici, 44PW348. These fragments represent less than one percent of the total artifact assemblage. The pipe fragments associated with the cellar slave occupation and the planter/military occupation were examined separately. Two pipe stem fragments and five pipe bowl fragments were recovered from the cellar slave quarters. Four pipe stem fragments and nine pipe bowl fragments were associated with the planter/military occupation.

The Binford pipe stem dating formula was not applied to these samples because of the extremely small size. No meaningful date could be obtained from analyzing the pipe stem bore diameters. The pipe bowl fragments were too small to yield diagnostic information concerning dates.

Five pipe fragments representing three different red-paste earthenware pipes were recovered from the cellar slave quarters. Two of these pipes are hand-formed. One pipe exhibits faceting around the bowl exterior. The second is a reed-stem pipe, which was whittled to thin the walls of the pipe bowl. The third pipe is molded. This pipe is more refined than the hand-formed pipes and was probably manufactured elsewhere.

The paucity of white clay and North American-made pipes may indicate that very few of the house slaves smoked tobacco from clay pipes. They may have preferred corn cob or wooden pipes, chewing tobacco, cigars, or snuff. None of these items survive well in the archeological record. The domestic slaves might also have packed up their pipes with all other personal possessions when the family evacuated the house on the eve of the First Battle of Manassas.

Three fragments representing two tobacco pipes were recovered from the planter/military occupation. One pipe is a hand-formed, undecorated reed-stem

pipe. The second pipe is a thinly-molded pipe of undetermined form. These pipes may have been the property of soldiers occupying Portici, either as patients or guards at the temporary field hospital, or possibly the seasons after the battle. They also may have been used by members of the planter family, though higher grades of pipes were typically purchased for the personal use of the planter's family members.

The few pipe fragments from the planter/military occupation of Portici also suggests a low frequency of smoking within the house. The majority of the soldiers quartered within Portici were wounded and probably could not smoke. Some soldiers occupying the house may also have used other types of pipes and tobacco, or taken their white clay pipes with them when they left.

Summary

The low frequency of white clay tobacco pipes recovered from Pohoke and Portici did not provide an adequate sampling size to apply the Binford pipe stem formula. Site date ranges based on tobacco pipe stem bore diameters were therefore unobtainable. The frequency, albeit low, of these so-called Negro-pipes at the Portici field slave quarters and at the cellar slave quarters in the main house is consistent with the assemblages recovered from plantation excavations in South Carolina, Georgia, Florida, and Tennessee. Greater numbers of white clay "Negro-pipes" have been consistently recovered from slave cabins than from planter households (Otto 1984:76; Singleton 1985).

The presence of North American-made tobacco pipes attests to the use of locally manufactured smoking devices. It is not known whether these pipes were produced at Portici plantation or purchased, or bartered, from neighboring plantations. The presence of these pipes suggests other "home-made" pipes may have been used, such as corn cob or wooden pipes, which have not survived in the archeological record.

The scarcity of tobacco pipes at the Portici plantation complex may additionally suggest alternate forms of tobacco were preferred to pipe smoking. Tobacco items such as snuff, dip, or cigars may have been consumed instead. The low frequency may also indicate that few of the occupants residing at the areas examined developed a taste for tobacco. Whether this was prompted by personal, religious, or imposed factors, is not known. The recovery of other luxury items typically purchased by slaves such as glass beads, liquor bottles, and decorative glass, suggests that the means to purchase tobacco and tobacco pipes was present.

8 GLASS

Fragments of glass recovered from archeological sites provide general information reflecting the economic status, household activities, and social habits of the occupants. Glass analysis does not generate detailed insights in the same manner as a ceramic analysis. The level and variety of information glass imparts is, however, significant and useful.

A Brief History

Glass is essentially a very simple item to manufacture. It is produced by mixing silica (SiO2) in a sand form with an alkali flux, such as soda or potash, and a base stabilizer such as lime or lead (Jones and Sullivan 1985:10). The silica must be melted to form glass. Flux lowers the melting point of silica which is approximately 1,410 degrees Celsius (Weast 1975:B2). The stabilizers replace any natural impurities burned off during the melting process and help prevent the finished glass from cracking as it cools.

Glass varies in its chemical composition. There are four basic chemical combinations which are used to classify the finished silicate products. These categories include soda glass or soda-lime glass, potash-lime glass, lead glass or potash-lead glass, and lime glass (Jones and Sullivan 1985:10).

Soda glass is one of the oldest and most commonly produced types of glass. Sodium hydroxide (soda) was used as the flux in this glass. Until the late eighteenth century, the soda was made from burnt marine plants such as seaweed and kelp. In 1787, a chemical process was developed in France that converted common salt (sodium chloride) into soda. This salt-derived flux was purer and more readily available than the plant-ash variety of soda. Soda became the preferred flux of the nineteenth-century glass makers particularly for manufacturing bottles, windows, and lamp chimneys because of its low cost and dependability. Soda glass is colorless, light in weight, and quick setting. It is well-suited to all manner of elaborate forms and decoration.

In 1864, new processes were developed for obtaining soda in West Virginia. Although commonly called "lime" or "lime flint" glass, this brilliant, colorless glass was essentially an updated version of soda glass. It rivaled lead glass in appearance but was considerably cheaper to make and soon became the dominant material used for inexpensive pressed-glass tableware.

By the late nineteenth century, a combination of soda-lime flux was used in the manufacture of glass containers and tableware. It was particularly suited to the semi-automatic and automatic glass machines. The soda-lime flux produced a hard, stable glass which set quickly and kept pace with the machinery (Jones and Sullivan 1985:10-11). Colorless glass bottles are still made of soda-lime glass today.

In areas where soda was not readily available, glass makers used the ashes of bracken fern and other woodland plants for flux. This potash-lime glass first appeared in forested areas of Europe during the tenth century. The ashes were an easily obtained by-product of the wood and plant fuels used to fire the furnaces of local glassmakers. Early potash-lime glass was often green-hued from the high iron content of the sand used. Drinking glasses and window panes were the most common forms of "Waldglas" or "forest glass" produced (Noel Hume 1969:185).

By the seventeenth century there was a gradual shift in taste towards heavy, clear glasses that lent themselves to engraving and cutting. A colorless, potash-lime glass was developed in Bohemia during the last quarter of that century. This new, clear form was an excellent medium for the decorative arts.

The nineteenth century witnessed a general decline in the manufacture of potash-lime glass. The switch from wood-burning furnaces to those fueled by coal depleted the once readily available supply of plant ash. New technologies in processing soda made it a more accessible commodity. Finally, potash-lime glass did not set-up quickly enough to keep pace with the glass molding machinery of the late nineteenth century (Jones and Sullivan 1985:11).

Lead glass, or potash-lead glass was first developed in England circa 1676. This glass has a high refractive index, is heavy, colorless, and very lustrous. New styles, particularly in stemwares, were developed to take advantage of all these qualities (Jones and Sullivan 1985:11-12). English lead-crystal was being produced in abundance by the eighteenth century. The secret of its formula and manufacture were slow to spread throughout the rest of Europe, however.

Though lead glass was primarily used for mouth-blown tablewares, it was also molded into pharmaceutical or medicine vials and bottles, small condiment jars and lamp chimneys (Noel Hume 1969:43). Lead glass was very popular when manufactured in pressed tableware forms in nineteenth-century America. It was, however, eventually replaced by the more economical soda-lime glass in the 1860s. Lead glass is still manufactured, and preferred, today for fine tableware and decorative pieces.

The presence of lead in glass can be determined through the use of a short-wave, ultra-violet light. When lead glass is exposed to ultraviolet light it glows an "ice-blue" color (Jones and Sullivan 1985:12; Barbara Magid 1988:personal communication).

Lime glass, also known as "high lime" glass, uses lime rather than lead as the stabilizer. Soda or potash are used as the flux. The proportion of lime to flux in this type of glass are nearly equal. There is also a considerable amount of iron oxide present which, aside from giving the glass a dark, greenish hue, serves as additional flux. Lime glass is extremely hard and durable. From the sixteenth through the nineteenth centuries, it was most often used to manufacture bottles for shipping, storing, maturing, and serving assorted liquids. Alcoholic beverages such as wine, porter (a dark, heavy ale), beer, cider, and distilled liquors were the most common substances found in these bottles. Vinegar, castor oil, and mineral or "spa-waters" were also similarly packaged (Jones 1986:17). Hence, lime glass is also known as bottle glass, green glass, or olive glass (Jones and Sullivan 1985:12).

Whatever the chemical composition, molten glass may be formed into an object in a variety of ways. The earliest glass objects were formed by pressing the glass into small molds. This technique which was to become so popular in the nineteenth century, first appeared during the Eighteenth Dynasty in Egypt (Revi 1967:11). Until the advent of glass blowing sometime between 40 and 50 B.C., crude, core-molded glass was the only type of glass available (Frank 1982:131). These vessels were formed by dipping a cloth-covered, sand core into molten glass. If patterns were desired, thin rods of colored glass were wound around the warm, glass-covered core. The object was then rolled on a stone slab to create a smooth surface. Handles or feet were formed independently and attached to the vessel. Finally, the sandy core was scraped out leaving a rough-surfaced interior (Revi 1967:10-11).

By the first century A.D., a new method of manufacturing glassware appeared called mouth-blowing. In this technique, air pressure is applied to a glob of molten glass by mouth through a blow-pipe. Glass vessels which are mouth-blown in a free-blown form usually exhibit a relatively asymmetrical body. While these objects could be formed into elaborate shapes, the most common forms were elongated or simple globular containers and bottles. Most free-blown bottles pre-date 1730. Medicine bottles and vials, however, were produced in this fashion well into the nineteenth century (Jones and Sullivan 1985:22).

Glass bottles were not mass-produced until the seventeenth century when chemical and technological knowledge had grown in the glass-making industry.

Prior to this time, bottles were made of ceramic, leather, metal, or wood. Improvements in closures also increased the popularity of glass bottles, particularly as storage receptacles for wine and beer (Frank 1982:135-136).

Blown glass objects could also be formed by molding. The molten glass was blown into molds, either by mouth or machine. This process is known as "contact molding." Several styles of molds were available. Each molding method exhibits unique characteristics. Contact molding was used from the early seventeenth century through the 1920s (Jones and Sullivan 1985: 24-31). Glasswares created in these molds were typically formed into commercial containers, tableware, and ornamental pieces.

Molds were also used to produce repeating designs. This technique, known as "pattern molding," was generally used for flasks, tumblers, and stemware bowls (Jones and Sullivan 1985:32). Introduced to England in the sixteenth century, pattern molding did not appear in North America until circa 1765. This method of manufacturing glasswares cannot be replicated by machine and is still in use today (Jones and Sullivan 1985:32).

Press molding was first used on a small scale in England during the late seventeenth century. Molten glass is dropped into a mold, of any number of pieces, with or without designs. The only limiting factor in this process is that a plunger must be able to enter and exit without opening the mold. This plunger enters the mold, pressing the hot glass into the mold. The outer surface of the glass takes on the shape and attributes of the mold. The inner surface of the glass is shaped by the plunger. Once the plunger is withdrawn, the object is removed from the mold. Fire polishing restored any brilliance lost by coming in contact with the surface of the mold. Initially, this type of molding was used to manufacture solid items such as imitation or "paste" gems, glass seals, watch faces, and the like. By the late eighteenth century, parts of objects such as feet, handles, or stoppers were being made.

Major technological changes in the art of pressing glass occurred in the United States during the 1820s. For the first time, complete tableware forms such as tumblers, cup-plates, bowls, and serving pieces could be pressed. By the 1830s, mass-production of elaborate, lacy, pressed glassware was underway in the United States. Early pressed glass was predominantly made of colorless lead glass. The development of lime glass in the 1860s quickly displaced pressed lead glass. Lime glass looked and pressed like lead glass but cost approximately one-third less. Press molded glass is still made today, however, it is all done mechanically (Jones and Sullivan 1985:34-35).

By the late nineteenth century, advances in industrial technology in Europe and America produced semi- and fully- automatic glass container making machines. These machines could mass produce fixed-capacity containers that accepted standard-sized closures. These machine-made containers were, and are, bottles and jars shaped by machine-supplied air pressure. Semi-automatic machines were operating in the United States by 1881. Molten glass was manually supplied to the semi-automatic machines which could produce several containers simultaneously. Fully-automatic machines, which do not require any manual labor, appeared by 1903 (Jones and Sullivan 1985:38). It is virtually impossible to differentiate between these two methods of manufacture based upon any attributes they impart to the container during the manufacturing process. The sheer volume of low-priced glasswares produced by these machines quickly captured the general market. All but the most expensive decorative glass was machine-made after the 1920s.

Glass manufacturers employed a number of techniques to decorate the various forms and types of glass. The most popular of these methods included molding, cutting, acid etching, and icing or frosting. These decorative techniques were first developed in sixteenth century Venice. Each was subsequently revived elsewhere in Europe during the eighteenth and nineteenth centuries.

Glass is as varied in its forms and functions as in its chemical composition. The two most basic of these categories however, are flat glass and container glass. The flat glass category is dominated by window glass. Window glass was first used extensively throughout Rome and its far-reaching empire circa 200 AD. In fact, the Latin word "glesum" originated in the northern part of the Roman Empire, near Cologne. The word derived from a Germanic term for a transparent, lustrous substance and evolved into our modern word "glass" (Frank 1982:20-21).

By the seventeenth century, most glazed windows in Europe and in the New World were filled with glass cut into small triangles, squares diamonds and rectangles. These small, geometric pieces of glass were called "quarries." Mounted in grooved lead strips, they were set in iron frames which were in turn nailed into wooden casements. The glass used in these windows was made by blowing a large tubular bubble of glass. The bubble was cut open along one edge and laid flat across sand-covered iron. This flat piece of glass was known as a "table." The process was referred to as the "broad" method of glass manufacture (Noel Hume 1969:17, 233;Figure 37).

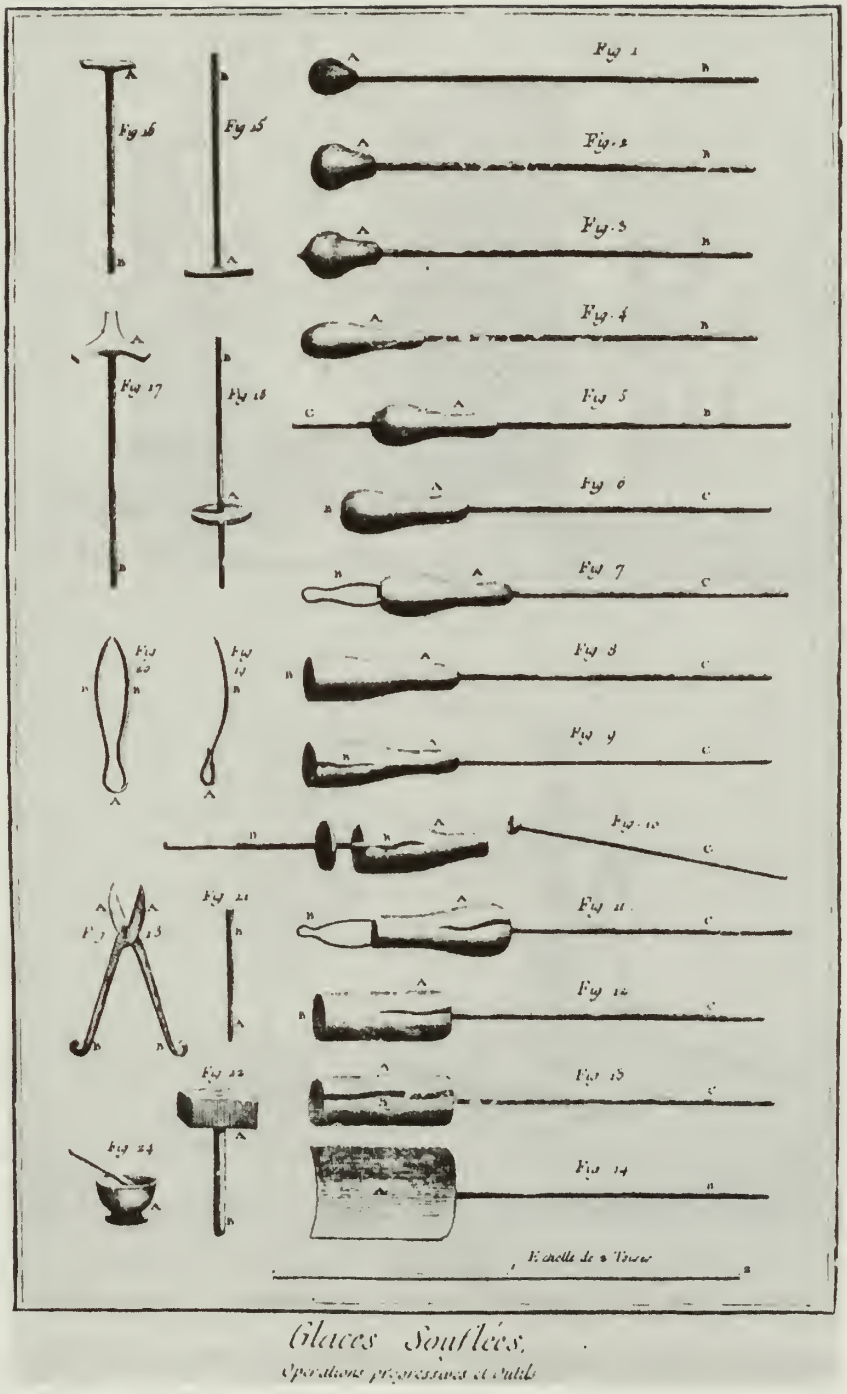
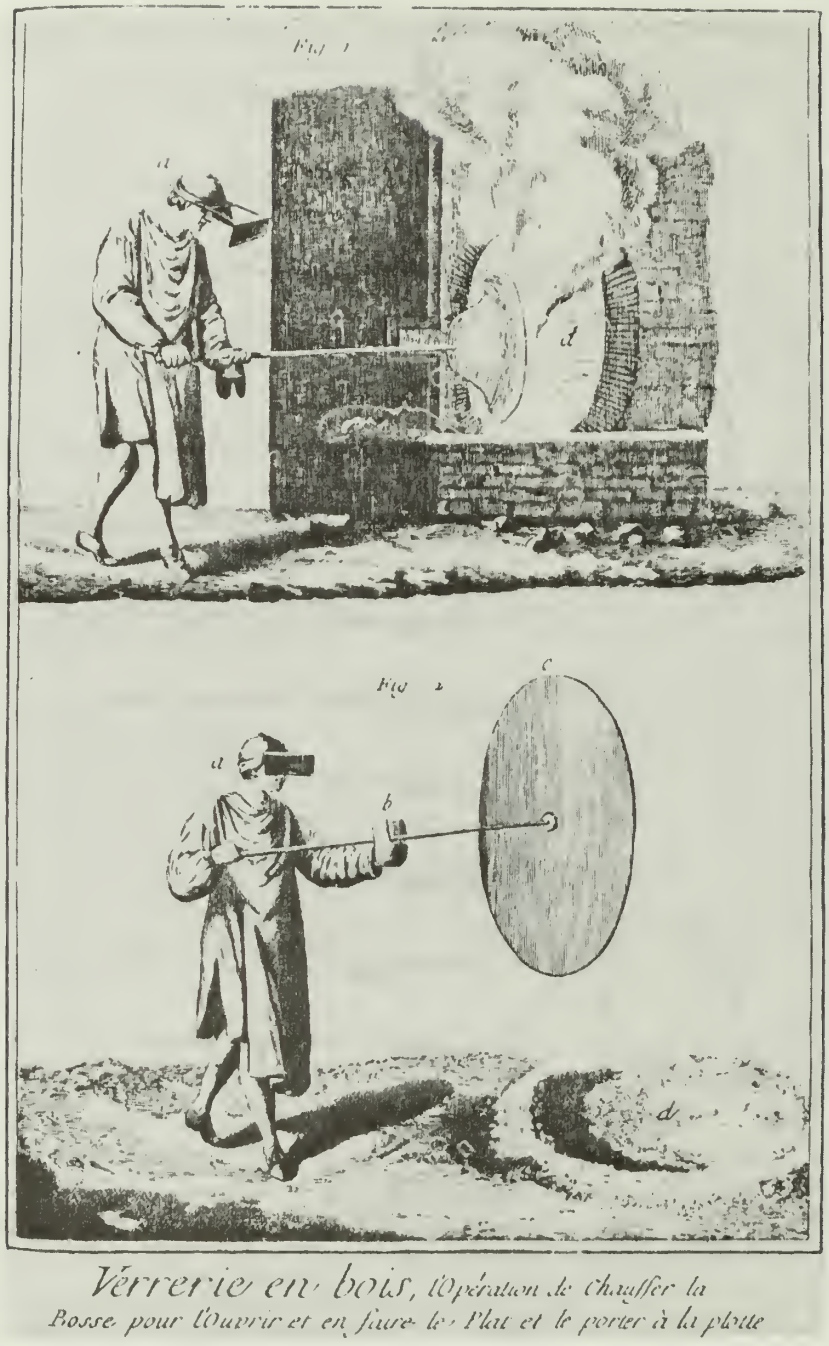


Figure 37 Eighteenth-century manufacture of broad glass (Diderot and d'Alembert Vol.IV 1772).



Verrerie en bois, l'Opération de chauffer la Bosse pour l'ouvrir et en faire le Plat et le porter à la plotte

Figure 38 Eighteenth-century manufacture of crown glass (Diderot and d'Alembert Vol.IV 1772).

During the late seventeenth century a new window glass technology emerged called the "crown" method. This process involved spinning an opened glass bubble into a disc (Figure 38). These discs, or "crowns" were usually about five feet in diameter. The air bubbles and stress marks contained within crown glass follow the curvature of the disc (Noel Hume 1969:234).

The crown method of window glass manufacture reigned until circa 1834 when the broad-glass technique was revived. Some modifications were made to the old technique. Much larger tubular bubbles of glass were now blown. The tubes were cold cut with diamonds and opened up onto beds of glass. The sheets of glass this produced measured approximately six to ten feet square. The variations on the "broad" technique became known as the "sheet process" (Noel Hume 1969:235).

The third, and most expensive, type of flat glass is plate glass. This technology involved casting molten glass on huge metal tables. Maintaining contact with the metal surface while air cooling created a clouded surface on the glass. This required polishing and grinding to finish the glass. The first plate glass was produced in Venice during the late seventeenth century. Large-scale production in England began in the late eighteenth century. The comparative expense of plate glass to the crown and broad type glasses placed it in the role of luxury item. It was most often silvered and used for mirrors (Jones and Sullivan 1985:171). Mirrors are included in the flat glass category.

Plate glass is currently manufactured by pouring molten glass on to a layer of pure, molten tin. The surface of the tin is perfectly smooth. As the glass hardens the contact maintained with this perfectly smooth surface results in a similar finish on the glass and requires no grinding or polishing (Nebergall, Schmidt and Holtzclaw 1972:648).

Containers, as a general glass category, include bottles, jars, and all other hollow forms. These items can be further defined and divided within the container category by their contents and purpose. Such divisions include serving and tablewares, beverages, medicine, food, household, and toiletries. All variety of manufacturing technology was used to produce containers ranging from free-blown forms to those automatically molded by machine. The manufacturing methodology is, however, often very difficult to determine when only small fragments of the vessel are available for examination.

Glass lid liners are included in the container category. Liners were first developed during the 1850s for use with glass canning jars. The earliest canning jars were closed with a wax seal. Hot wax was poured across the grooved jar lip

after the food or preserves were in place. A stopper or liner of glass, wood, or cork was then pushed into the hot wax forming a seal. Glass liners used in this manner are usually nicked and gouged from being pried off the congealed wax (Jones and Sullivan 1985:164).

In 1858, John L. Mason patented a molded jar with an embossed screw thread finish. The first jars were designed to be used with a zinc cap. These caps however, left an unpleasant metallic taste in the food. Two types of glass liners were patented in the 1860s to remedy this problem. One liner rested on a rubber ring and was held in place by a screw band, which is a metal cap without a center. The second liner was designed to be held in place by a complete metal cap (Jones and Sullivan 1985:165). Both colorless and opaque white glass, also known as milk glass, were used for liners. The latter were generally produced by adding tin oxide or bat guano, which is very high in calcium, to the silica, flux, and stabilizer (Jones and Sullivan 1985:14).

Analysis

In the archeological analysis of glass, fragments are sorted by physical attributes: the type or chemical composition of the glass; method of manufacture; shape of the fragment, and of the vessel or object from which it came; type of decoration; and the color. This latter attribute has little relevance in establishing the type of glass or the technology represented. It is, however, a universal attribute of glass. Color is valuable in identifying specific fragments, establishing a minimum vessel count, and gathering sherds for cross-mending purposes.

The extremely fragmentary nature of the glass recovered from the excavations often made identification of the manufacturing technology impossible. The large percentage of glass burned beyond recognition at Portici also impeded a detailed analysis. The shape and suggested function of the vessels represented became an important criterion in the glass analysis. Glass recovered from Pohoke, site 44PW335, and Portici, site 44PW348, was divided into four use or functional categories: flat glass, container glass, table glass, and lighting. Glass buttons and other personal items are discussed in Chapters 12 and 13 respectively.

The flat glass category is dominated by window glass and mirror glass. Unfortunately, window glass is not a very efficient chronological tool as it has a very long artifact life. Window glass could conceivably be used for fifty years or more before being broken or discarded (Jones 1986:152). This glass would be of a considerably earlier date than its companion refuse. This quality makes it an unreliable dating tool. Artifacts such as ceramics, nails, or complete glass vessels

are a more accurate means of establishing site chronology. Recent studies have suggested the thickness of window panes increases through the nineteenth century (Roenke 1978:51). These studies are, however, regionally-specific.

Containers, as a general glass category include bottles and jars (Figure 39). A bottle usually has a small mouth, but may also have a wide mouth, and a well-defined neck. Jars typically have a wider mouth, one which approaches the diameter of the entire vessel body. Jars have virtually no necks.

Bottles and jars can be further divided within the container category by their contents. These divisions include liquor, medicine, food, household, toiletries, inks, nursing, non-alcoholic beverages, general miscellaneous, and unidentified. The rather common practice of reusing bottles and jars often makes a significant difference between the date a container was manufactured and the date it was deposited in the archeological record.

Table glass or tableware refers to all glass which is used on the table and is associated with serving and consuming food and drink (Figure 39). Tableware also includes decorative objects such as vases and bric-a-brac. The techniques used in manufacturing tablewares are as diverse as the forms produced. Tablewares are often very elaborate and highly decorated.

The category of lighting includes all glass associated with illuminating devices such as lamp chimneys, hall and wall lanterns, chandeliers, and candleholders.

Pohoke

Glass represents 21% of the total material culture recovered from Pohoke. A total of 901 glass fragments are directly associated with Structure 1. The remaining 1,946 sherds were recovered from the refuse pit (Unit 137) generated by the nineteenth-century occupants of the Structure 1 slave quarters. The glass recovered from these two areas is depicted in Table 8.1.

None of this material can be directly associated with the eighteenth-century occupation of Pohoke. Some of the "luxury" items represented in the assemblage, such as mirrors, "parfum" bottles, stemware, and decorative "crackled" glass objects, may have originally belonged to the Ball family. Such objects might have been given to the slaves as gifts or cast-offs. These items may have also been purchased from local merchants by the slaves themselves. When slaves sold livestock or produce they often used the profits to purchase luxury items such as

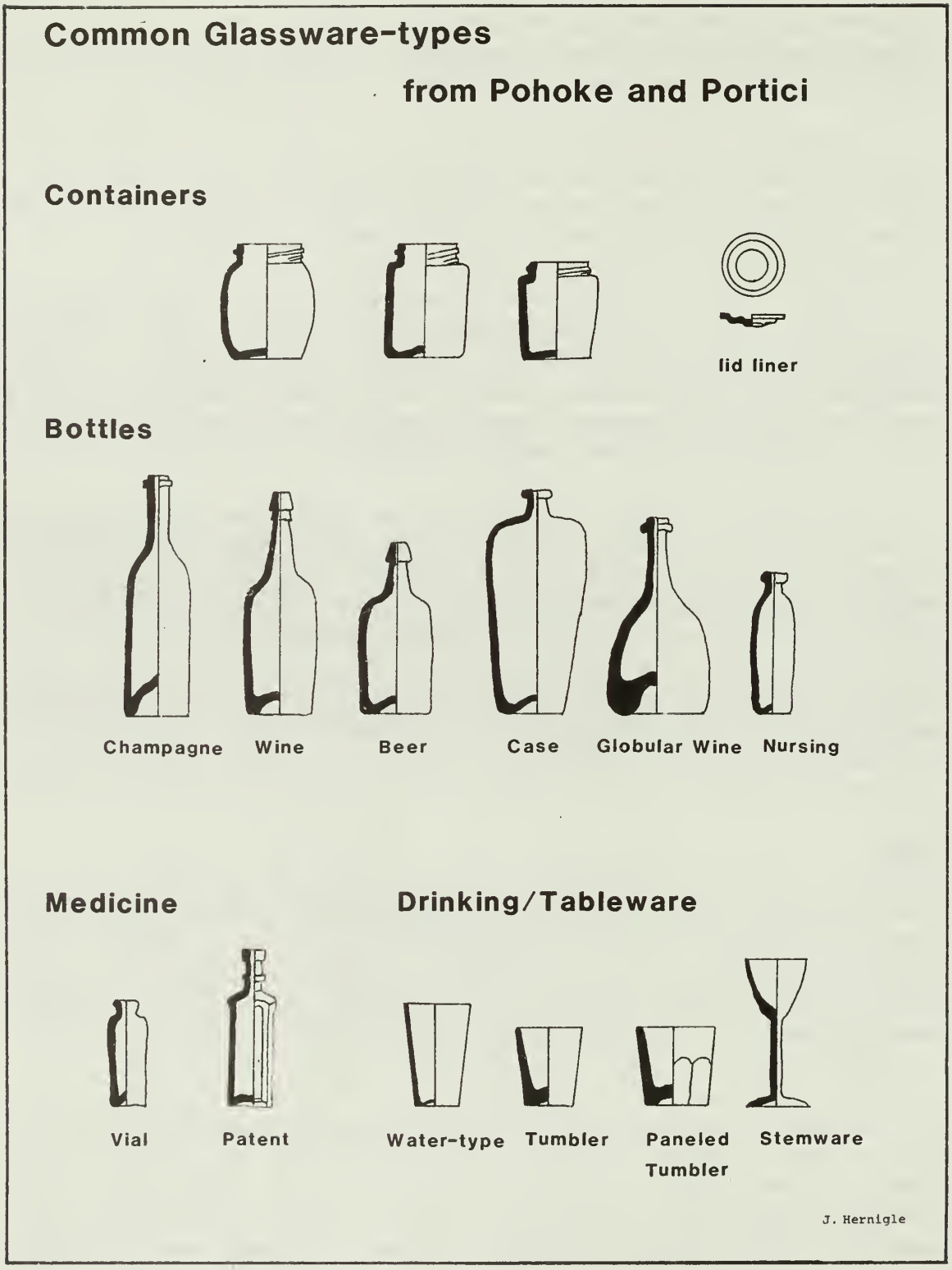
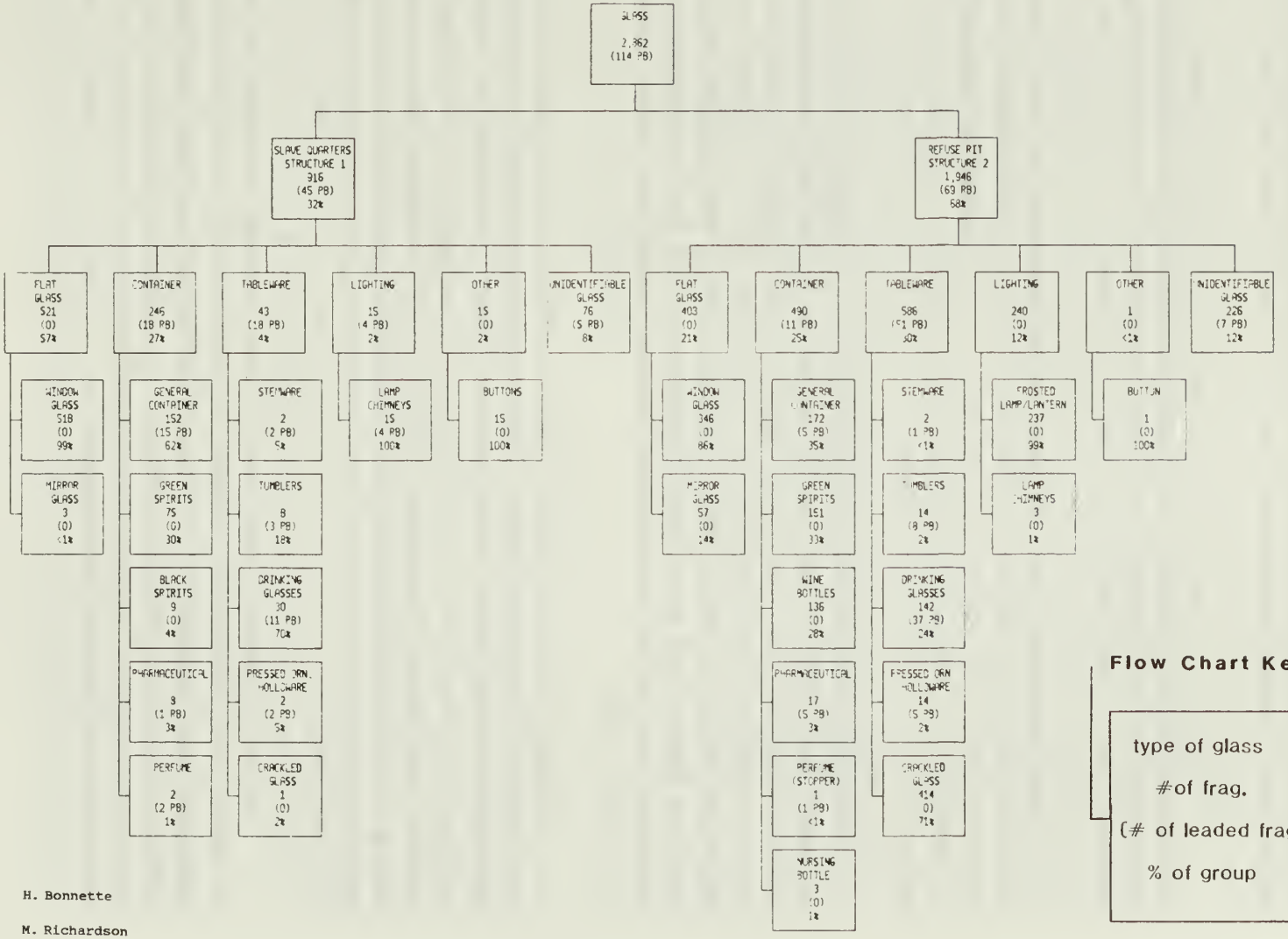

Common Glassware-types
from Pohoke and Portici
Containers
lid liner
Bottles
Champagne
Wine
Beer
Case
Globular Wine
Nursing
Medicine
Drinking/Tableware
Vial
Patent
Water-type
Tumbler
Paneled Tumbler
Stemware
J. Hernigle

Figure 39

TABLE 8.1 Pohoke Glass



H. Bonnette

M. Richardson

"fancy" clothing, household furnishings, supplemental food, tobacco pipes, beads, liquor, toys, and glassware (Otto 1984:45, 76-78). Though the primary ownership of these items is unclear, they were, at some point, used and disposed of by the Portici slaves residing at Structure 1.

Of the glass recovered from the immediate vicinity of Structure 1, 57% is flat glass. This figure includes 518 fragments of window glass suggesting this slave quarter had the benefit and luxury of glazed windows. Three silvered-fragments, probably from a small hand-mirror, were also found.

Flat glass forms 21% of the glass assemblage recovered from Unit 137, the 19th century refuse pit in Structure 2. The 346 fragments of window glass in this collection suggest the window(s) in Structure 1 were repaired or replaced during its occupation. Fifty-seven plate glass mirror fragments complete the flat glass category.

Containers constitute 27% of the Structure 1 assemblage. General purpose containers form 62% of this category, wine or spirits bottles represent 34%, pharmaceutical three percent, and at least one perfume bottle is present. Of the material retrieved from the Structure 2, refuse pit, 35% is of general container fragments. Wine and spirits bottles comprise 61% of this category with at least one case bottle, four wine bottles and four spirits bottles represented. The remaining items include at least four medicine bottles, one perfume bottle, and one nursing bottle.

The spirits and wine bottles collected at this site are primarily represented by cylindrical, olive green bottles. These were generally used for a variety of beverages including "Wine, Porter, Beer, or Cyder" (Jones 1971:73). Olive green bottles were manufactured both in England and the Northeast United States. They could be purchased either empty or filled with beverages. The darker green bottles, commonly called "black glass," were light-repellant and ideal for brewed beverages and cider. The lighter green bottles usually held wines (Noel Hume 1974: 197-198).

Otto has suggested a correlation between alcoholic beverages and status in his analysis of Cannon's Point Plantation (Otto 1984:76). A higher frequency of black glass was associated with slave occupied areas suggesting they drank, and probably made, more brewed beverages. The planter's assemblage produced a higher percentage of lighter green wine bottle glass, suggesting a greater consumption of wines and champagnes.

Nine fragments of "black glass" were found in association with Structure 1. The percentage of the lighter-hued green glass spirits and wine bottles far outweighs the black glass (four percent). This percentage may suggest the slaves at Portici preferred home-brewed brandies and wine to beer and cider. They also may have simply recycled the wine bottles and stored them in a dark place.

Fragments of case bottles were also present in the glass assemblage. Case bottles were blown-in-the-mold and designed for shipment in wooden boxes with square compartments. These bottles typically held gin or bitters. At Cannon's Point Plantation they were associated with the overseer's deposits (Otto 1984:115). The case bottles may represent the purchase of a luxury alcoholic beverage at Structure 1. The fragments may also indicate the continued use and reuse of a previously discarded container.

General purpose, colorless glass containers formed 62% of the container category at Structure 1 and 35 % of the containers recovered from the trash pit. While grain alcohol is easily stored in colorless containers, these were probably used for preserved foods and condiments. No evidence of stills to manufacture grain alcohol was recovered from the site.

Five percent of the glass recovered from Structure 1 is tableware. This group is represented by at least one lead glass stemware, two paneled tumblers, two drinking glasses, one pressed glass ornamental container, and one decorative item of "crackled" glass (Figure 40).

"Crackled" glass, also known as craquelle, frosted, or iced glassware, was first invented by Venetian craftsmen in the sixteenth century. Hot glass was plunged into cold water, reheated and then reblown. This process produced the appearance of ice or frosting on the exterior surface of the glass while remaining smooth. A second method involved rolling the molten glass "gather" over a marver covered with crushed glass fragments. The fragments were slowly heated on the hot gather producing the desired fractured effect. Although this glassware seems to be covered with cracks and fractures it too, is perfectly smooth. Craquelle glassware was eventually produced throughout Europe and America.

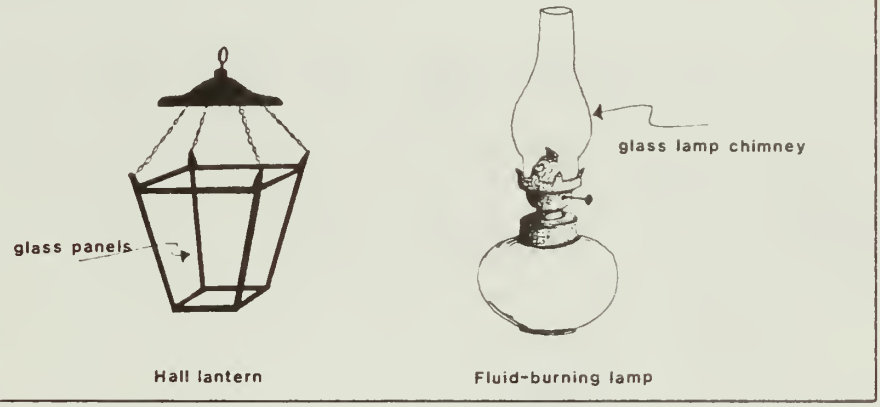
Iced and frosted glass was only manufactured in transparent white or colorless crystal until the mid-nineteenth century. At this time, the formidable dictates of Victorian fashion decreed that the simulated ice glass should be colored, and so it was. The entire color spectrum soon appeared in transparent "crackled" objects. Manufacturing techniques were continually revised and modernized for this decorative glassware well into the twentieth century (Revi 1967:61-64).

Figure 40 Fragments of an ornamental crackle glass vessel associated with the Structure 1 slave quarters at Pohoke. Scale: one inch.

"Crackled" glass constitutes 71% of the tableware assemblage recovered from the Structure 2, refuse pit. These 414 transparent, peach-colored, holloware fragments attest to the presence of at least one, mid-nineteenth century, luxury glass item which was apparently associated with this slave quarter. The other glasswares included in the tableware class include at least three paneled tumblers, two drinking glasses, one lead glass stemware, and two pressed glass decorative holloware items.

Glass fragments associated with lighting devices were also prevalent in the refuse pit assemblage. Lighting elements constitute 12% of the glass recovered. Ninety-nine percent of this collection consists of flat, frosted, lamp or lantern fragments. Straight-sided hexagonal and octagonal hall lanterns and those with four tapering sides were quite popular during the late eighteenth and early nineteenth centuries. The glass panels illuminated while protecting candles or lamp wicks from drafts caused by opening and closing doors, pedestrian traffic, poorly-set windows, and the like. The basic lantern forms were adapted from the covered street-lamp poles used throughout England at this time (Bacot 1987:221). Colorless lamp chimney fragments form the remaining 1% of the lighting assemblage. Fifteen colorless lamp chimney fragments represent the lighting category directly associated with the architectural remains of Structure 1 (Figure 41)

Figure 41



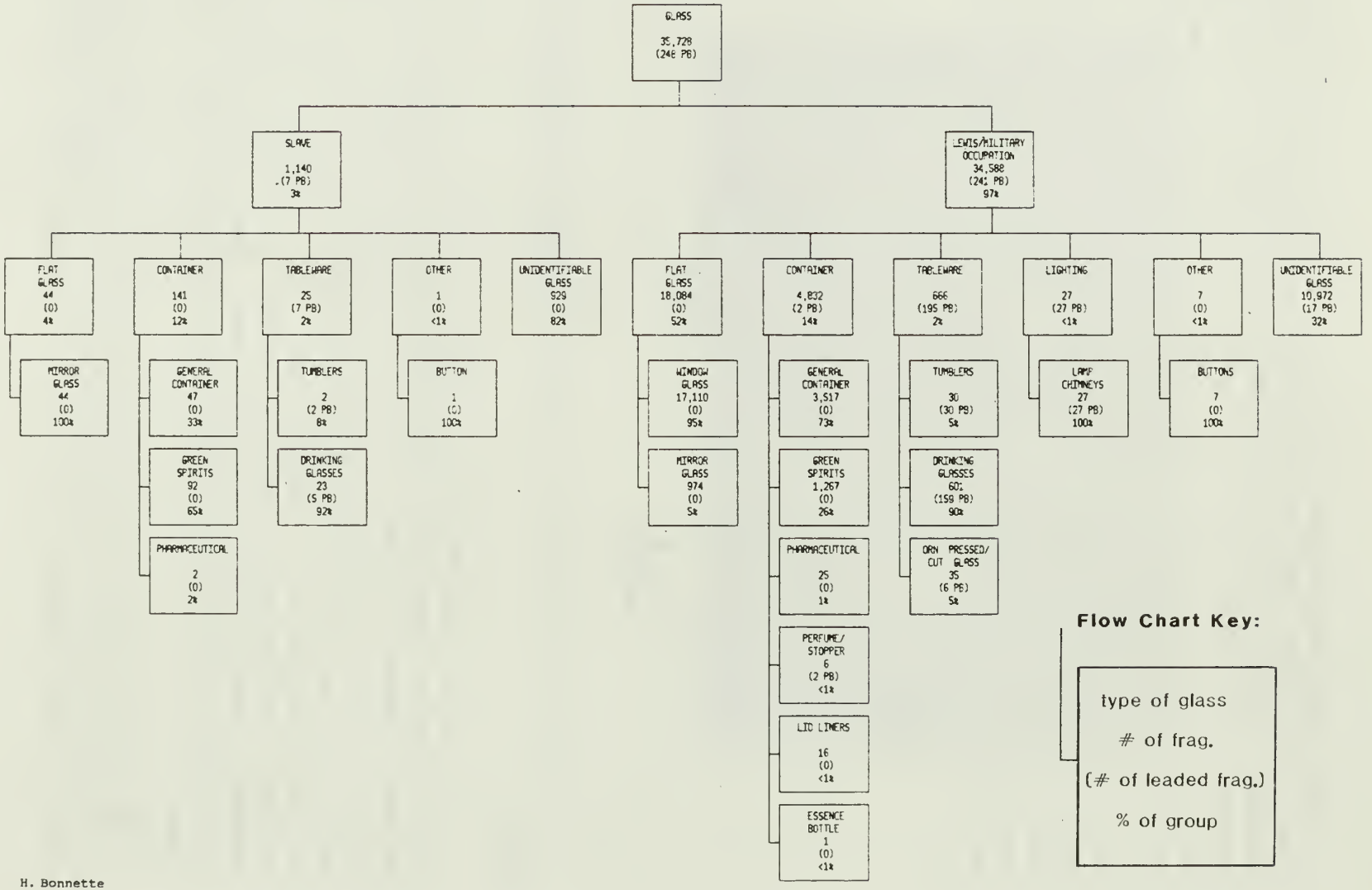
J. Hernigle

Portici

It is indeed unfortunate that heat does not wield the same preserving powers on glass as it does upon ferrous objects. Rather than annealing, it distorts and destroys diagnostic attributes. Of the 35,720 fragments of glass recovered at Portici, more than 33% had melted and were no longer identifiable. The frame mansion house was constructed on an upland ridge and placed in a manner which took full advantage of the summer winds. This orientation and natural "air-conditioning" functioned much like a bellows once the fire started. The temperature within the house must have reached at least 1,728 degrees Celsius (3,113 degrees Fahrenheit), which is the melting point of glass (Weast 1975:D55) (Figure 42).

The glass is associated with two distinct groups at Portici, the house slaves and the planter/military occupation (Table 8.2). It is nearly impossible to determine whether container glass recovered from the upper floors of the house

TABLE 8.2 Portici Glass



H. Bonnette

M. Richardson

is associated exclusively with the planter's family or with the military occupation of the house following their evacuation. An exception is the window, and probably the mirror glass, which are more than likely associated with the house and its original occupants.

Three percent of the total glass assemblage was recovered from the cellar slave quarters. Eighty-two percent of these 1,140 fragments were burned and unidentifiable. Forty-four plate glass mirror fragments were the only identifiable items of flat glass associated with the cellar residents. Container glass comprises 12% of this assemblage. Included in this category are at least one colorless commercial container, two green spirits bottles and one medicine bottle. In contrast to the container glass recovered from the slave quarters and refuse pit at Pohoke, site 44PW335, alcoholic beverage bottles constitute 65% of the container glass associated with the house slaves. This percentage is almost double that of the slaves residing at Structure 1.

Only 25 fragments of tableware were recovered from the cellar quarters. Two fragments of paneled, lead glass tumblers were recovered along with 23 drinking glass fragments. This is in sharp contrast to the comparative abundance of luxury tableware items recovered at Pohoke. The glass recovered from the cellar quarters is merely a representative sample of the actual glassware utilized by its occupants, assuming they followed the general refuse disposal patterns of the planter family above. The percentages within each category are probably a good general index of the variety of glass used by these individuals.

Ninety-seven percent of the Portici glass assemblage is associated with the planter/military occupation. Of these 34,588 fragments, 32% are burned or melted and unidentifiable. As might be anticipated at a large domestic structure, window glass is the best represented object. Window glass comprises 95% of the flat glass category. Three of these fragments bore the etched graffiti of former occupants. One sherd found beneath the formal east porch was inscribed "...ary." Mary Stewart Lewis, the eldest daughter of Frank and Fannie Lewis, is suspected of autographing this window pane (Figure 43). The remaining 974 fragments of flat glass are plate glass mirror fragments.

Containers form 14% of the glass assemblage. General commercial colorless containers represent 73% of this glassware category. At least 13 green spirits bottles were recovered. Pharmaceutical glass was represented by at least three medicine bottles. One of these bottles contained "Vermifuge," a concoction used to expel worms and other parasites from the intestines of humans and animals. A minimum of two perfume bottles, one perfume bottle stopper, and one complete essence bottle were also recovered.

Figure 42 Melted window glass recovered from the ruins of Portici's mansion house.

Figure 43 This window glass fragment found beneath the formal east porch of the mansion house is inscribed "...ary." Mary Stewart, the eldest daughter of Frank and Fannie Lewis, is suspected of autographing the glass. Scale: one inch.

Tableware represents a mere two percent of the glass assemblage associated with the planter/military occupation. Drinking glass fragments constitute 90% of this category. Slightly more than one-quarter of these sherds are leaded. The remaining 10% of the tableware is evenly divided between paneled lead glass tumblers and ornamental cut and pressed lead glass. At least one elaborately cut, colorless lead glass, cup plate is included. The cup plate was manufactured at the Boston and Sandwich Glass Company in Sandwich, Massachusetts. The distinctive pattern (Figure 44) was popular from circa 1830 through circa 1840 (Bruce Larson 1987:personal communication).

Figure 44 Portion of an ornate "Sandwich glass" cup plate from Portici.

Lamp chimney fragments are the only lighting elements present in the assemblage. This category represents less than one percent of the glass recovered.

The obvious absence of quality table and decorative glassware from the excavations at Portici's main house was not altogether unexpected. The Lewis family was notified by Confederate officers of the pending military occupation of their property. They therefore, "...took with them everything they could" (Gray 1861:10). Glass being very portable, was probably removed by the family, along with all their other mobile, valuable, worldly goods. The archeological record does not suggest that these valuable glass items were left behind. Only 17 of the 10,972 burned, unidentifiable fragments in this assemblage are lead glass. Had the glassware been packed and stored in the house, its presence would have been reflected in the materials recovered.

Summary

Analysis of the glassware associated with the nineteenth century Portici slave quarter at Pohoke, site 44PW335, has generated some interesting data. Within the container glass category, the percentages of olive-green wine and spirits bottles recovered at both the Structure 1, slave quarters and the Structure 2, refuse pit, is approximately 30% from each area. These percentages are similar to those associated with slave cabins at the First Hermitage in Tennessee (Smith 1976:165).

The percent of colorless container glass is much higher at Structure 1, representing 62% of the containers recovered. Colorless containers comprise only 35% of the container glass deposited in the nearby refuse pit. This latter figure is more in keeping with those calculated for the First Hermitage slave cabins (Smith 1976:166-169). The high percent of colorless container glass at Structure 1 may be in response to the exceedingly small amount of stoneware vessels associated with that structure (see Chapter 6). Colorless commercial glass containers may have been used in place of stonewares for pickling, canning, and all the other food processing activities for which earthenwares are not suitable.

A second possibility addresses Structure 1's proximity to the plantation orchard. The occupants may have been charged with preserving fruits for plantation consumption. They may also have engaged in a small, home-canning business for personal use and/or for profit, in a manner similar to the small livestock and poultry-raising enterprises often conducted by slaves to generate food and a source of income (Carter 1834:564-565; Otto 1984:45,58,145).

Fragments of at least seven medicine bottles were recovered from Structure 1 and its refuse pit. The contents of these vials are unknown. Three of these vials were found in conjunction with a single, faceted, blue glass bead. These beads are rapidly becoming recognized as a hallmark of nineteenth-century slave occupations (Theresa Singleton 1988: personal communication). Otto suggests that pharmaceutical vials found in association with these blue beads, may be reliable status indicators for identifying slave-occupied sites (Otto 1984:174). The evidence retrieved from Pohoke would seem to substantiate this tenet.

Table glass is often employed as a status indicator. Cut glass in particular is used in this capacity for nineteenth century sites (Lewis 1985:130). The table glass associated with the architectural remains of Structure 1 at site 44PW335, forms five percent of the assemblage. Similarly, at Cannon's Point slave sites, table glass represents 6.6% of the assemblage. The table glass recovered from Structure 1's refuse pit, however, represents 30% of the collection. Comparatively, this figure suggests a much higher status association. The presence of fragments from a single, very distinctive, crackled glass vessel in both the refuse pit and in the slave quarter, however, suggests an obvious link between the two.

There are two possible explanations for this glut of high status, luxury glassware. These objects may have been given to the slaves by the planter family. More likely, these items may have been purchased by the slaves themselves (Otto 1984: 45,58,76-78,145). The association of the glassware with other items commonly purchased as "luxury" items by slaves, such as kaolin tobacco pipes, blue faceted glass beads, and mirrors, suggests the slaves at Structure 1 were probably purchasing at least some portion of these luxury glass items for themselves.

9 NAILS

One of the most abundant diagnostic artifacts recovered from historic domestic sites is nails. Like ceramics, nails can aid in establishing the date range of a site's occupation. Nails assist in determining when and how a structure was built, as well as establishing the sequence of construction. Additions or structural modifications can often be dated through nails. Structural maintenance programs may also be revealed.

Nails are typically divided into three categories based upon the method of manufacture. This classification includes hand-wrought, machine-cut, and machine-made wire nails. Nails are further divided within these categories by architectural function and by size. The terms "sprig" and "brad" are generally used to define the latter and are applicable to nails in any of the manufacturing or functional categories. Smaller-sized nails, usually ranging from one-half to one inch, are called sprigs. Sprigs were usually sold by quantity and used primarily for finish, framing, or trim work. Brads refer to the larger nails more than two inches in length. These were generally used for flooring or concealed work and were sold by weight.

A Brief History

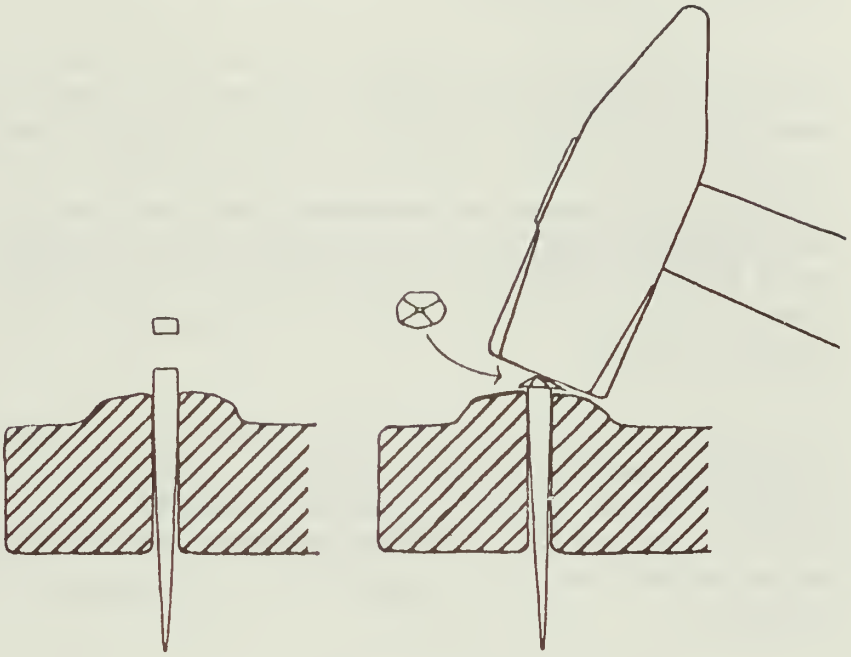
Hand-wrought nails are an interesting commodity (Figure 45). Alone, they are not particularly useful in determining the age of an architectural site or structure. Of the three varieties of nails, they span the greatest number of years. They were used from the seventeenth century and well into the nineteenth century. For this reason, other diagnostic materials, such as architectural hardware or ceramics, found in association with the wrought nails should be considered to produce a more accurate range of dates.

Wrought nails display considerable variation as each was individually made by a nailer. These nails were produced at a blacksmith's forge from a wrought nail rod. The rod was inserted into a nail header, cut to the desired length and a head hammered out. Several varieties of wrought nails were developed to fill different needs.

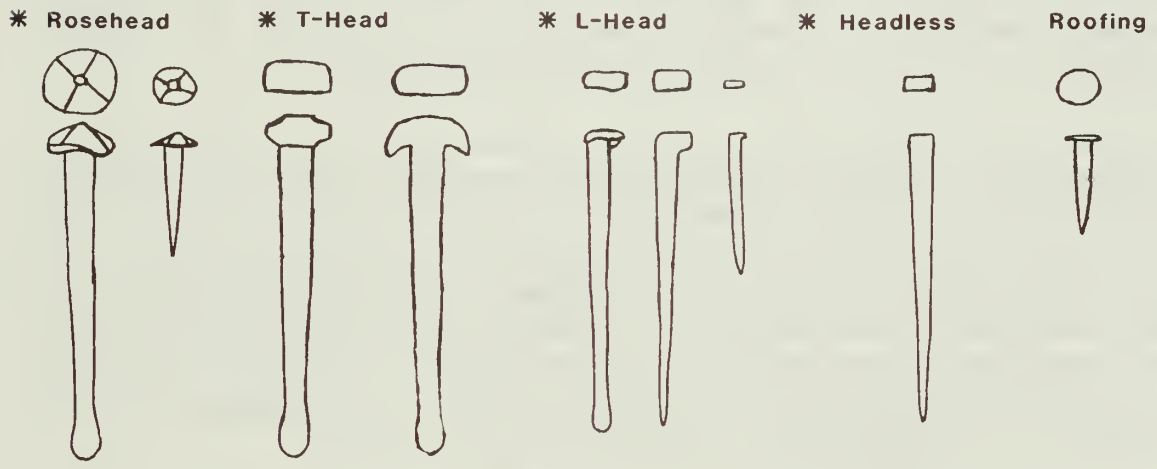
One of the more common wrought nails is the rose-head nail. Its distinctive shape was made by striking four hammer blows to the nail head. Rose-head nails were most often used to secure clapboard and shingles to house frames (Bealer 1976:60). The "T" and "L"-headed wrought brads were used to clinch floor and

Figure 45

HAND—WROUGHT NAILS



17th-20th Century



* NOTE: These various nail types were made in Construction, Common, and Finish sizes

(adapted from Nelson 1963).

wallboards. Wrought finishing sprigs attached wooden, cloth, or leather trim to the structural wood beneath. Both "flat" and "sharp" points were used on all varieties of wrought nails.

The manufacture of wrought nails was predominantly a European monopoly during America's Colonial period. As many as 2,000 nails per day per nailer were produced (Bealer 1976:60). The ever increasing demands of the expanding colonies could not be met, however. Therefore, nails became an extremely valuable import not to be squandered. Nails were so scarce in fact, that a statute was enacted in Virginia in 1645 prohibiting the burning of old buildings for their nails (Hening 1823:291). America did not become more dependant on local resources to supply nails until the Revolutionary War eliminated any choice (Nelson 1962:2).

From circa 1790 to circa 1830 there was a technological transition from wrought to machine-cut nails. This more efficient manufacturing technique was in direct response to the increased demand for locally produced, inexpensive, housing material. All of which was prompted by the western colonial expansion in search of fresh soil to replace that exhausted by the insatiable tobacco economy.

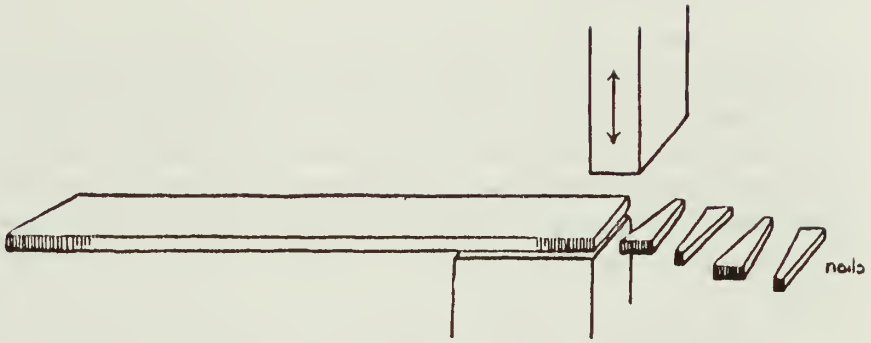
Machines were developed during the 1780s and 1790s which cut nails from a sheet of iron. The nail head was then finished by hand. These combination nails (Figure 46) exhibited characteristic triangle-shaped heads and shanks which tapered on two sides. They were produced in a variety of sizes. Brads used for primary construction purposes, such as joining house frames and attaching wallboard, were the most commonly produced combination nail.

As the machine-cutting technique evolved, nails were soon completely machine-made. The early machine-cut sprigs and brads, manufactured from circa 1805 through circa 1820, were available in a variety of shapes and sizes. Curved points and corners typify the nails of this period. They were especially popular for use with trim and flooring. The only flaw in their manufacture was that the nails were weak. These nails were cut from the metal sheets in such a way that the metal fiber was perpendicular to the nail length. For this reason, wrought nails continued to be popular for many years following the introduction of these cheaper cut nails, particularly for purposes such as clinching.

The cut nail manufacturing technology continued to improve. By 1830, the nails were cut with the metal fibers parallel to the length of the nail shank. Cut nail improvements were first applied to the smaller sizes. The changes gradually

Figure 46

MACHINE–CUT NAILS

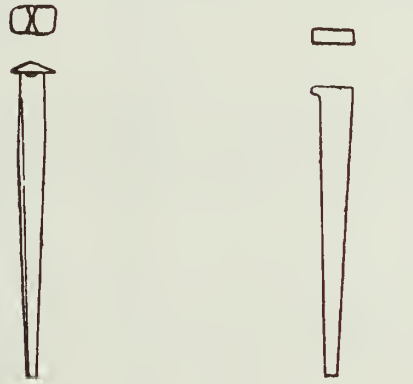


Machine-cut Nails with hand-made heads - (Combination)

Construction
c.1790-c.1820

L-Head
c.1790-c.1805

Lath
c.1790-c.1810



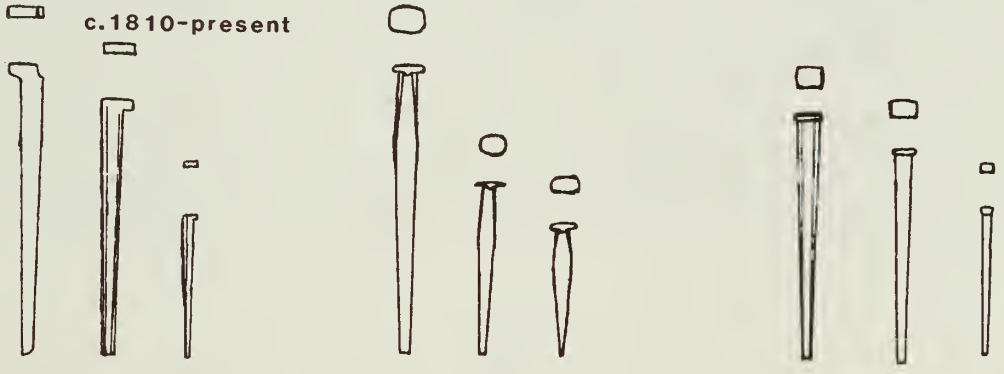
Completely Machine-cut Nails

c.1805-c.1820

c.1810-present

c.1810-c.1830

c.1830-present



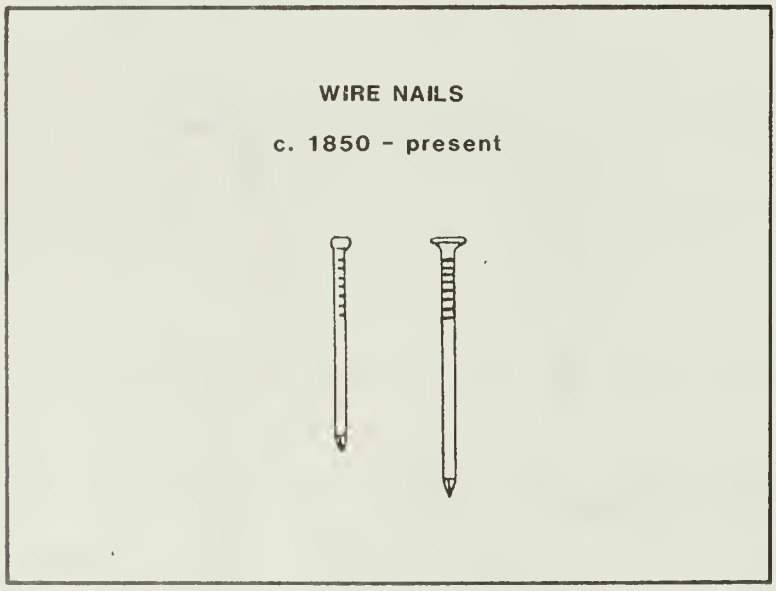
(adapted from Nelson 1963).

spread to include the various brads and spikes as well. Once perfected, machine-cut nails remained virtually unchanged throughout the rest of the nineteenth century.

Wire nails (Figure 47) first appeared in Europe during the 1830s. Introduced in America during the 1850s, successful manufacturing firms were established by the 1860s and 1870s. The earliest of these machine-drawn and cut, steel wire nails were only available in the smaller sizes for cigar boxes, pocket-book frames, and the like (Nelson 1962:10). The larger construction and common size nails were neither available nor used in America until after circa 1875 (Noel Hume 1969:254).

The transition from machine-cut nails to the perfected wire nails was much more gradual than the transition between wrought and cut nails. The physical holding power of cut nails delayed the acceptance of wire nails. Wire nails did not actually become dominant until the 1890s (Nelson 1962:7). Unfortunately, wire nails are not themselves readily datable. The earliest examples, however, display a somewhat bulbous head.

Figure 47



(adapted from Nelson 1963).

Analysis

Nails recovered from the archeological excavations at Pohoke (Table 9.1) and Portici (Table 9.2), were first sorted by the method of manufacture. Further divisions into one of three functional categories were then made. These categories include construction, common, and finish nails. Construction nails are defined as any nail exceeding two inches in length used in the construction of the structural framework. This classification includes flooring brads, L-headed nails, and spikes. Common nails are those nails measuring between one and one-half and two inches in length. These were the nails used to attach the remaining essential elements to the structural frame. Finish nails are those used in any trim or finishing capacity within the structure. These nails measure less than one inch in length. They were generally used to secure wood molding or lath boards.

Nails and nail fragments recovered from the surface collection of each site are not included in the structure-specific nail analysis of either Pohoke or Portici. At Pohoke, 1,277 nails representing 44% of the nail assemblage were examined. Of the 20,425 nails recovered at Portici, 12,046 nails, forming 59% of the nail assemblage, were analyzed.

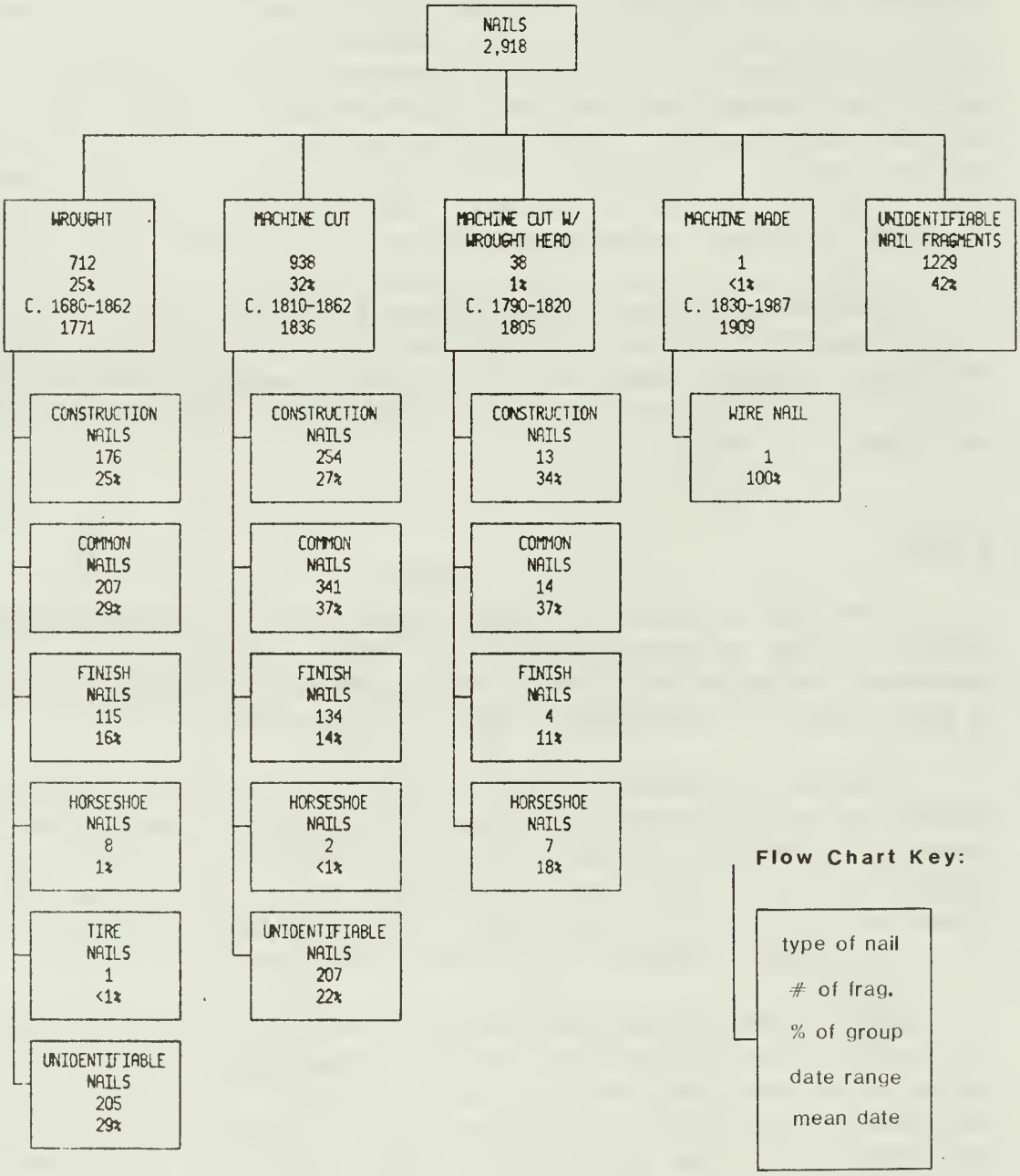
Pohoke

Archeological evidence of two structures was discovered at Pohoke. Ferrous materials associated with either structure at this site are not well preserved. Forty-eight percent of the nails associated with Structure 1 and 41% of those affiliated with Structure 2, are unidentifiable (Table 9.1).

Structure 1, is located in excavation Units 2, 3, 4, 6 and 119. Architectural artifacts and historical documentation suggest that Structure 1 was a frame cabin measuring approximately 12-by-12 feet with a stone chimney along the east exterior wall. The cabin frame was probably set on four stone piers above the ground surface. The nails associated with Structure 1 suggest a construction date of circa 1820 which coincides well with the ceramic mean date of 1823.

Of the 1,090 nails associated with Structure 1, 519 nails forming 48% of the assemblage are unidentifiable because of excessive corrosion. Thirty-two percent of the identifiable nails are hand-wrought and 68% are machine-cut. Of the machine-cut nails three percent were manufactured between circa 1790 and circa 1820; seven percent from circa 1810 to circa 1830, and 90% date from circa 1830 through circa 1863. Hand-wrought and machine-cut nails associated with primary construction suchas clinching support beams, or attaching flooring or

TABLE 9.1 Pohoke nails



H. Bonnette

M. Richardson

as clinching support beams, or attaching flooring or rafters, represent 26% of the total nail types recovered. Finishing nails accounted for only six percent of the nails at Structure 1.

Little remained of Structure 2, the "good dwelling house" required of Robert Councillor Carter's first tenants at the farmstead which grew into Pohoke plantation. The robbed foundation of the early eighteenth-century structure was located and partially exposed in Unit 137. Few of the architectural elements which originally composed this building remained. When the eighteenth-century dwelling house was dismantled, viable construction materials were evidently recycled into Structure 1. Nails were still a valuable commodity in the early nineteenth century and were seldom wasted. While these nails were no longer in their original context at Structure 2, information concerning that structure was still available. The eighteenth-century dwelling house was apparently a small, modest, frame structure set on a cut sandstone foundation.

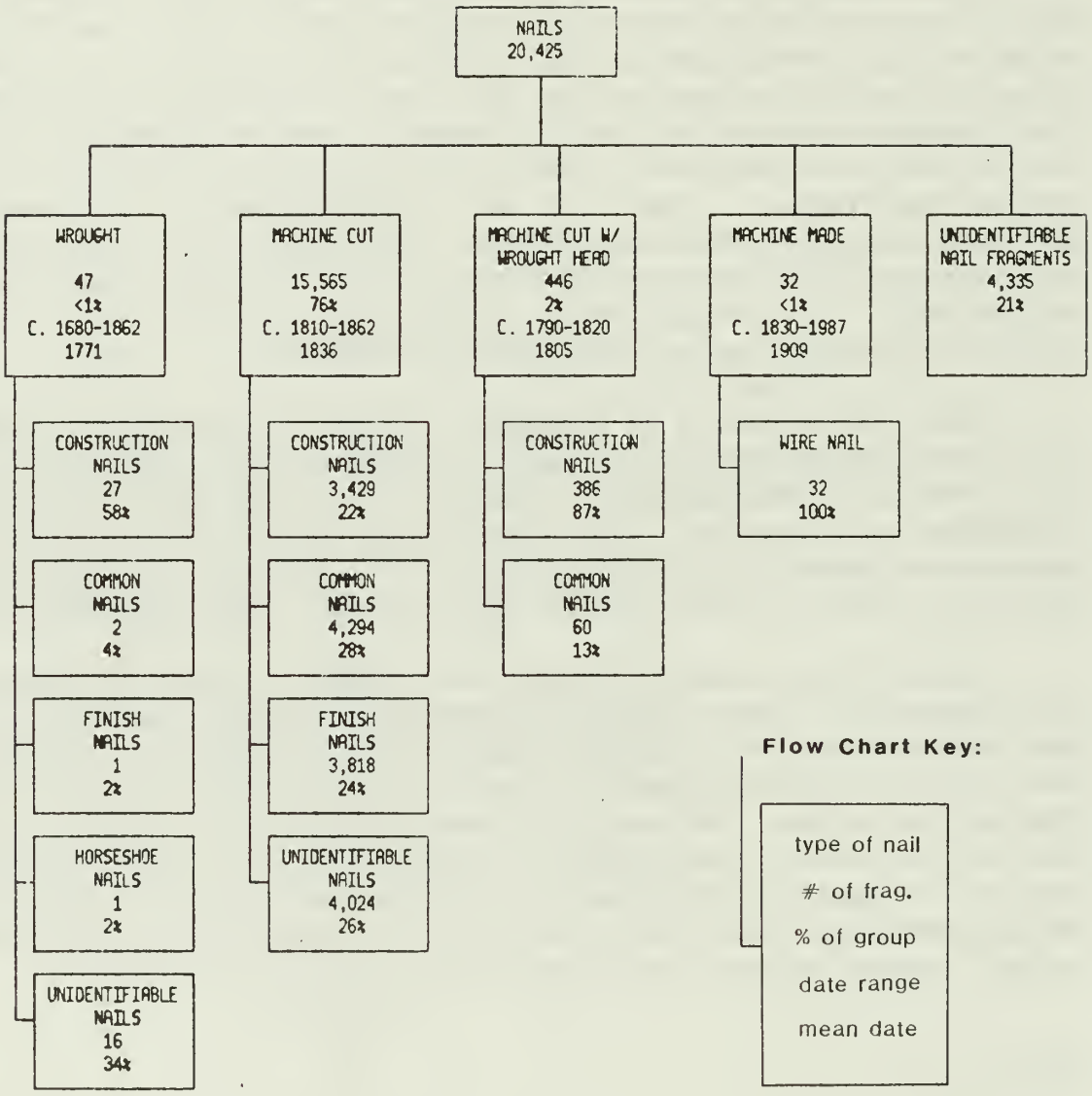
The trash generated by the occupants of Structure 1 was deposited into the empty cellar hole of Structure 2. This refuse dominates the material from Unit 137. Of the 1,577 nails associated with Structure 2, 41% are unidentifiable. The identifiable nails are 69% hand-wrought, one percent are machine-cut manufactured between circa 1790 and circa 1820, two percent were manufactured circa 1810 through circa 1830, and 28% date from circa 1830 through circa 1863.

Stanley South's mean date formula was originally developed for ceramics (see Appendix K). However, the junior author decided to test its application on nails recovered also. No revisions of South's original formula were necessary. The resulting calculations suggested a mean date of circa 1793 for filling of the Structure 2 cellar hole. This early mean date for the trash generated by a post circa 1830 occupation is not unusual. A substantial number of these nails were probably scavenged from the eighteenth-century dwelling house and "recycled" into the nineteenth-century Structure 1. As repairs were needed, more contemporary cut nails replaced the older ones which, no longer usable, were discarded.

Portici

The annealing properties of the fire which destroyed the main house at Portici sometime during 1863 left 41% of the 20,425 nails recovered, in a well-preserved, easily identifiable state. Seventy-six percent of these nails are machine-cut, two percent are combination machine-cut with hand wrought heads, less than one percent are completely hand-wrought, and less than one percent are wire nails (Table 9.2).

TABLE 9.2 Portici nails



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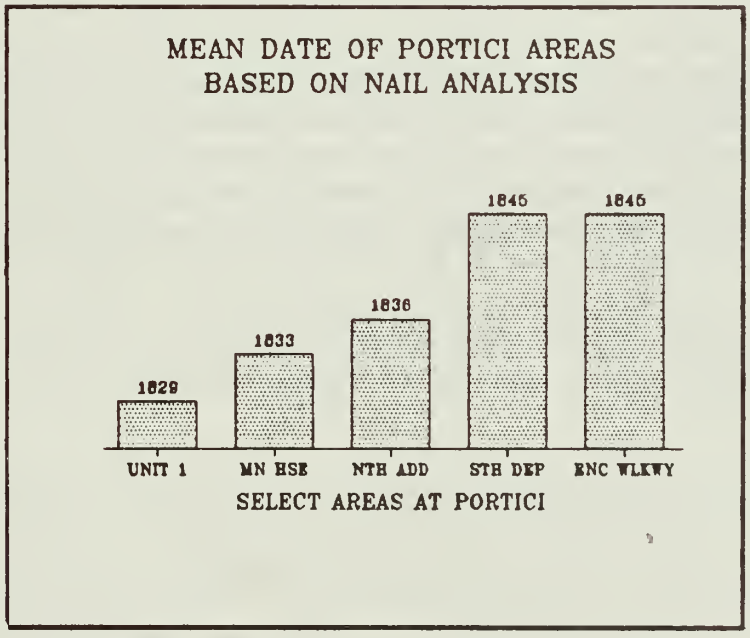
The nails recovered from Portici were particularly enlightening regarding the sequence in which the additions and dependencies of the main house were constructed (see Figure 28). The nails associated with the main house itself reflect a single period of construction and the on-going maintenance associated with its occupation of approximately 40 years. The mean date suggested by these nails is circa 1833 (Table 9.3). The nails retrieved from Unit 1 were analyzed separately as a representative vertical sample of the main structure. The mean date suggested by Unit 1 is circa 1829.

Shortly after the main house was completed, a small addition was added to the exterior northwest corner. The nails recovered from the North Addition suggest a mean date of construction as circa 1836. Nails were the only diagnostic artifacts found in this addition. The function of this structure remains unknown.

A small dependency was next built approximately three feet south of the main house. The artifacts and placement of the structure suggest it functioned as a detached winter kitchen. Nails recovered from this south dependency suggest a mean date of circa 1845 for its construction. An enclosed walkway was built connecting the south dependency to the southwest corner of the main house at approximately the same time.

TABLE 9.3



H. Bonnette

In addition to establishing the time and sequence of various stages of construction at Portici, nails were also used to define the stratigraphy within the structure as well. Interior walls, exterior walls, floors, and ceilings were distinguished from one another in the burned rubble by the functional types of nails they contained. This information was particularly useful in determining which floor or room various artifacts were associated with in the main house.

Summary

A comparison of the nails recovered from Pohoke and Portici exhibits rather elemental tenets in the construction of a field slaves residence and that of the planter. Structure 1, the Portici slave quarter at Pohoke, was built approximately during the same period as the structures examined at Portici. The nails used in Structure 1 were older nails which had apparently been "recycled" from the abandoned and dismantled eighteenth-century dwelling house. The type of nails dominating the assemblage were those used for primary and secondary construction purposes. Very few finishing nails were included. Structure 1 was apparently a less elaborate building with little decorative wooden trim requiring finishing nails.

In contrast, Portici's main house, additions, and south dependency were built with the most modern nails available during the early nineteenth century. The ratio of finishing nails to primary construction nails implies well-made, neatly trimmed structures. The relative absence of finish-type nails within the additions and the south dependency indicate they were somewhat less "finished" than the main house. The slaves residing in the cellar quarters of the main house seemed to have benefited from their close association with the planter families. The materials used to construct their domicile and jerry-build interior cellar walls, were primarily the same as those used in the upper floors of the main house.

10 METALS

Metal objects are generally found amongst all economic classes and most ethnic groups in North America. Blacksmiths, tinsmiths, cutlers, pewterers, coppersmiths, braziers, and other craftsmen created all the various metal implements required in eighteenth, nineteenth, and early twentieth-century rural and urban life. Metal items recovered from the archeological record can provide a wide spectrum of information concerning the manner of preparing and consuming foods; structural and decorative architectural information; details regarding the type and style of furnishings present within the structure; types of agricultural practices and often the variety of crops grown; and finally, the various arts and crafts pursued.

A Brief History

Metal objects are typically categorized by physical characteristics and elemental composition. Metals are produced from various natural ores which are used either alone, in a "pure" state, or combined with other ores and additional elements to produce alloys. Metal objects are most commonly formed from gold, silver, copper, lead, aluminum, and iron or from alloys such as bronze, brass, pewter, and steel.

Human beings first became aware of metal in Anatolia (modern Turkey), in the form of copper and gold, around 4,000 B.C. (Joukowsky 1980:402). These two soft ores were easily extracted and readily worked into decorative items. To utilize the harder ores encountered, the process of smelting had to be mastered. The key was to regulate and maintain higher temperatures to reach a metal's melting point. Once higher temperatures could be achieved, iron and other harder metals were crafted by various techniques into durable tools and ornaments. These advances in metallurgy occurred concurrently throughout the ancient world and were eventually carried across the Atlantic Ocean to the Americas.

The development of metal-working in North America began in earnest in the seventeenth century. The settlers, whether farmers or craftsmen, shared a necessity for tools and weapons fashioned from metal. Guns, swords, and armor were used as defense against attacks. Metal agricultural and cooking implements kept starvation from the family's doorstep.

Many craftsmen tended to specialize in one metal. For example, blacksmiths worked primarily with iron while whitesmiths worked with tin. In rural areas metalsmiths were generally skilled in repairing or working with various types of metals. When new metal implements were needed colonists generally went to town and sought out the craftsman who specialized in the metal or carried the particular items sought. Like the metal trade, the following section is divided into blacksmiths, cutlers, pewterers, braziers, and whitesmiths. Evidence of the metal objects worked by these craftsmen was recovered archeologically at both Pohoke and Portici.

Blacksmiths

One of the most important artisans in North America during the eighteenth, nineteenth, and early twentieth centuries was the blacksmith. Blacksmiths worked with iron in two basic techniques. Molten iron was cast in a mold to form the finished product, or the iron was hammered on an anvil and heated in a forge. The latter method produced wrought iron items.

To cast iron, ore was melted in a furnace and ladled into sand molds on the blacksmith's shop floor. Pots, andirons, firebacks, bars of iron called "pigs," and other solid objects were cast. The cast iron pigs were sold to iron foundries and village blacksmith shops where they were worked into wrought iron objects. The procedures used to process the cast pig iron included repeated hammering and heating to align the iron fibers and remove impurities (Schiffer 1979:14,18). Large quantities of wrought cast iron were also processed in water-powered mills. Rolling and slitting mills formed the wrought iron into lengths of flats or rods which were often sold to blacksmiths and worked into other useful articles (Schiffer 1979:19).

Large-scale iron furnaces and forges were located along the east coast well into the nineteenth century (Schiffer 1979:18). They supplied most of the unfinished iron bars to local blacksmiths, and some cast iron objects to the public. The local blacksmiths were "jacks-of-all-trades," skilled at creating new iron objects and mending broken ones.

The wrought and cast iron items the blacksmiths produced were crucial to settlement of the frontier. Weapons, architectural and agricultural hardware, kitchen utensils, locks, horse hardware, and horse shoes were all created in the blacksmiths' forge.

Forges were built of stone with a square hole placed two and one half feet above the ground. This fire-hole held charcoal suspended on grating. Air was directed through this opening to intensify the heat produced in the forge. A large

ox-hide bellows worked by an apprentice known as the "blower-and-striker" provided the draft (Tunis 1965:20). The blacksmiths' massive iron anvil stood in front of the forge. The anvil provided a base for working the hot iron pulled from the forge.

Iron working was a labor-intensive trade. Hand-labor was used to transform raw iron ore into the desired finished products. After circa 1840, the steam engines of the Industrial Revolution allowed the mass-production of metal goods by iron masters in factories. Costs were consequently decreased causing an eventual decline in the higher-priced, hand-wrought items (Bealer 1984:24). With the advent of mass-produced metal goods, people could order hardware and utensils from catalogues such as the 1865 Illustrated Catalogue of American Hardware of the Russel and Erwin Manufacturing Company, based in New York, Philadelphia, Boston, and San Fransisco. Hardware became more standard in appearance loosing much of the uniqueness present in hand-crafted pieces.

Cutlers

The cutler's shop displayed various kinds of tablewares including knives, spoons, and forks for the perusal of their customers. Knives created in the seventeenth century were made by four different craftsmen: the bladesmith, the hafter, the sheather, and finally the cutler who assembled the parts into a complete knife (Noel Hume 1969:177). Table knives, like many items of long term use, have gone through numerous, datable, stylistic changes. During the first half of the seventeenth century, table knives were straight and narrow-bladed with sharp points. These points were used to pierce the food and transport the morsel to the diners' mouth. The sharp, spearing points of the knives were gradually squared-off and by the 1770s the point was simply rounded. It is this rounded style that has survived to the present. There have been only slight changes in blade curvature over time (Noel Hume 1969:180).

Two-tined forks were first used by England's upper classes during the seventeenth century. Catering to this clientele, these forks were often cast in gold and silver (Deetz 1977:122). The volume of two-tined forks manufactured in iron, brass, and steel steadily increased to meet growing demands. These forks remained popular until the early nineteenth century. Three-tined forks made their debute during the mid-eighteenth century (Noel Hume 1969:180). Their ensuing popularity and availability directly corresponds to the evolution of blunt-tipped knives (Deetz 1977:122). The appearance of the various fork styles on American dining tables lagged slightly behind those found on British tables.

Forks and knives, had to be attached, or hafted, to handles of bone, ivory, and wood. These implements could be hafted in two different ways. First, a flat fork or knife tang, extending back from the blade area, was fit between the two pieces of a handle and riveted in place. The other hafting method was to fit long spikes, known as "rattails," in a hole drilled down the center of the handle (Noel Hume 1969:180).

Spoons were formed by casting various metals in two-pieced hinged molds (Noel Hume 1969:183). These utensils can be readily dated by their distinctive bowl and handle designs. However, pewter spoons were easily melted and recast in molds. Because many North American families kept these molds for generations, spoon styles are not necessarily reliable indicators of age.

Pewterers

Pewter was used extensively in homes and taverns from the seventeenth century through the early nineteenth century. It was formed into durable spoons, ladles, basins, plates, chargers, bowls, and tankards. Buttons, buckles, and inkstands were also manufactured. Pewter is an alloy of tin and lead, copper, or antimony. It is a soft, easily worked metal. The better grades of pewter have an inherent hardness that responds well to continual use. Lower grades of pewter were often quite malleable. When spoons or other utensils broke or bent, they were easily repaired and often recast. Repairs or recasting were often done at home.

Pewterers manufactured objects in many different grades of pewter. The grade determined the cost. Different grades were correlated to the percentages of lead, copper, and antimony used to alloy the tin. "Ley" metal, with sixteen percent lead, was used to cast hollowares. "Trifle" pewter contained more lead and was generally used in button and buckle casting. The coarsest grade was known as "black" pewter, and contained more than 40% lead. It could only be fashioned into articles which had no contact with food. In the 1800s, "brittania" metal, yet another type of pewter, was developed in England to imitate silver (Tunis 1965:73).

While pewter could be hammered like many other metals, most American pewterers cast their wares. The most common molded items were spoons, basins, plates, and buttons. Molten pewter was poured into a hinged-mold and allowed to cool and harden. Once the object was released from the mold, the first task of the craftsman was to fill in air bubbles on the surface and smooth the entire object. The final finishing step involved refining the surface of the pewter with

a treadle-powered lathe and a cutting hook. A burnisher dipped in soapsuds was used to erase the hook marks. A rottenstone and leather pad was then used to apply the final polish (Tunis 1965:73).

Braziers

Brass was a very popular metal throughout the seventeenth, eighteenth, and nineteenth centuries. Brass is an alloy of copper and zinc, which appears in a wide range color in response to the proportion of dark red copper and white-toned zinc present (Schiffer 1978:15). This metal lent itself to detailed casting more readily than iron or copper. It was therefore utilized for manufacturing precision mechanical instruments such as compasses, quadrants, and sextants. Brass parts were also used in clocks, musical instruments, furniture hardware, harness trappings, buttons, screws, buckles, candlesticks, straight pins, and steam engine valves.

Most brass objects were cast in sand molds. Sand molds involve placing a lead or boxwood model of the object to be cast in a master mold-frame packed with a mixture of very fine sand and clay. A powder of talc and willow charcoal was dusted over the model or patterns to facilitate their release from the molds. Moistened sand was sifted and packed over the patterns. An empty frame was then placed over the master mold. The sand mold was further compacted by mallet strikes forming the first half of the mold. When the master mold was inverted and processed in an identical frame, the second cast mold was completed.

Grooves were cut into the compacted sand mold channeling the molten brass into the pattern and forcing air and gasses out. Both pieces of the sand mold were then dried thoroughly to prevent steam from forming when the molten brass was poured into the mold (Schiffer 1978:29). When the brazier deemed the molds ready, the two mold pieces were placed in a wooden press. Brass was melted over a coal fire, and ladled into the mold opening. After the brass cooled, the mold was opened and the casting removed.

The two halves of the molded object were filed clean and a flux was put between them. The halves were held together with wire and silver solder placed on the joint exterior. The silver solder has a lower melting temperature than the brass, allows the piece to be soldered in a furnace without destroying it. Lathes were then used to skim off excess brass and smooth rough spots on the surface. The object obtained the characteristic brass polish after being rubbed with progressively finer grit; first emery (aluminum oxide), then pumice (volcanic ash), tripoli (limestone and clay), and finally jeweler's rouge (iron oxide) (Schiffer 1978:32).

Whitesmiths

The whitesmith, or tinsmith, worked with tin-coated sheet iron rather than pure tin. Sheets of iron were cut into small squares, pickled in a mild acid, and scoured with sand. Tinners then dipped the pieces into a vat of molten tin, coating the sheet of iron. The tinners incorrectly believed that this process allowed the tin to penetrate the iron and form an alloy (Tunis 1965:65).

This coating restricted the manner in which whitesmiths could work their tin-coated objects. It also limited the vessel forms. Whitesmiths were limited to boxes, cylinders, and cones, or a combination of these shapes. If the object were subjected to overheating, the coating melted off, and over zealous hammering broke the tin coating (Tunis 1965:65). The whitesmith had to curve and bend his metal gently.

When making an object in tin, the whitesmith used snips to cut sheet metal into a predetermined pattern. Hammers were used to bend the metal into the desired shape and pincers overlapped edges to form butt joints. As tin melted easily, these joints had to be soldered with a lead and tin mixture, which melted at a lower temperature (Tunis 1965:66).

Whitesmiths typically fashioned such everyday items as pails, boxes, lanterns, betty lamps, candlesticks, and rain gutters. These tin items were less expensive versions of articles made in brass, iron, copper, silver, or pewter.

Analysis

The metal artifacts recovered from Pohoke and Portici were first classified by function. These categories include architecture or house hardware, furniture, illumination, equestrian hardware, agricultural hardware, craft or trade-related tools, kitchen and dining utensils or hardware food storage, and unidentifiable fragments of metal. Artifacts were were sorted within these categories by material and the method of manufacture. Iron, brass, copper alloys, lead alloys, tin-coated sheet iron, and pewter dominate the collections. Methods of manufacture represented are hand-wrought, cast, machine-made, or some combination of these technologies. Date ranges ascribed to these metal items relied heavily on the manufacturing techniques. Nails (see Chapter 9), buttons (see Chapter 12), coins, jewelry, and other metal personal items (Chapter 13), and militaria (Chapter 14) are not included in this discussion of more general metal artifacts.

Pohoke

A total of 3,403 metal artifacts were recovered from Pohoke, site 44PW335. Of this figure, 2,918 objects are nails which are discussed in Chapter 9. The 348 remaining metal artifacts are badly deteriorated and, therefore, unidentifiable.

Sixty-two identifiable metal artifacts were found in association with the field slave quarters including architectural, furniture, horse, wagon, and agriculture hardware, kitchen and dining utensils, and trade-related tools. Thirteen architectural elements are associated with Structure 1: eight very large, wrought iron construction spikes, one wrought iron door strap hinge fragment, one lock plate fragment, and three internal lock mechanisms. These latter items are associated with a cast iron square "Carpenter-pattern" lock which may have secured the door of Structure 1 (Figure 48; Russel and Erwin Manufacturing Company 1865:22).

Figure 48 Portion of a Carpenter-style door lock which may have secured the Structure 1 slave quarters.

Furniture hardware associated with this dwelling includes one mid-eighteenth-century brass furniture padlock with a pivoting keyhole cover (Noel Hume 1969:251), one cast brass Chippendale bail handle dating to circa 1750-1775 (Noel Hume 1969:228), one possible cast iron chest or trunk handle, one ornamental brass fragment possibly from a mantel clock, and one small wrought iron strap hinge, possibly associated with an enclosed cupboard (Figure 49).

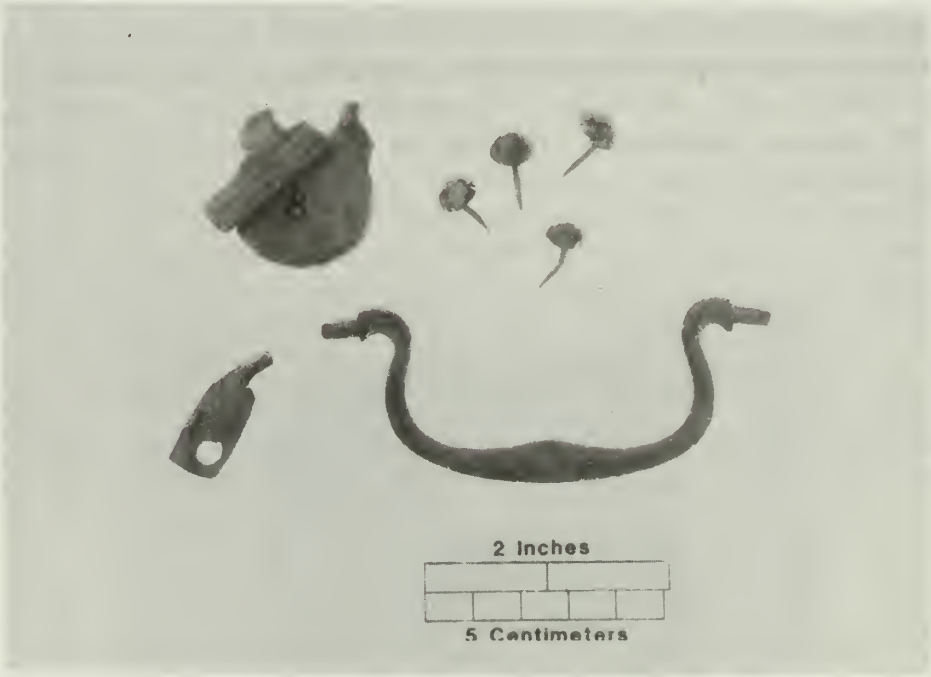


Figure 49 Eighteenth-century brass furniture hardware associated with Structure 1 includes this small padlock (upper left), mantle clock hinge (lower left), upholstery tacks (upper right) and Chippendale-style drawer handle.

Horse and wagon hardware associated with the Structure 1, slave quarters, numbered 24 artifacts. Two wrought horseshoe fragments, ten machine-cut horseshoe nails, three wrought harness rings, six cast harness buckle fragments, one wrought harness bridoon, and one harness pin, as well as one possible fragment of wagon hardware were found. These items were all crafted in iron.

Thirteen kitchen/dining items were also recovered from Structure 1. Two two-tined cast iron fork fragments, two brass mid-eighteenth-century table knife fragments (Noel Hume 1969:182), five fragments of an iron slicing-type kitchen knife blade with a flat haft, and one "rattail" iron haft from either a spoon, fork, or knife represent the tableware recovered. Two wrought iron S-shaped hooks for suspending cooking pots over a hearth fire were found, in addition to a cast iron andiron leg fragment which may have supported logs within the hearth.

Trade-related implements recovered from the field slave quarters include one tapered file, one bastard file, one hot punch, one narrow mortise chisel, two simple flat chisels, and one draw knife blade fragment (Figures 50, 51, and 52). These tools are generally associated with carpentry or wood-working tasks and can also be used in blacksmithing activities.

Seventy-five metal articles were recovered from Structure 2, the eighteenth-century cellar hole-turned-refuse pit. The architectural hardware assemblage included seven wrought iron strap hinges, one of which terminates in a tulip finial; seven very large, wrought iron construction spikes, two joist staples, and three fragments of a very poorly preserved cast iron box-type lock.

Furniture hardware found consists of 12 brass upholstery tacks, five small brass wood screws, one small brass hinge fragment, one brass hinge pintle fragment, and one simple brass lock escutcheon. One fragment of a cast iron Franklin-type stove was also recovered from the refuse pit.

Items associated with horse and wagon hardware include five horseshoe nails, two wrought iron horseshoes, one cast iron harness buckle, one wrought iron harness loop, and six unidentifiable harness fragments. Two wagon or carriage bolts were recovered. The refuse pit also yielded one strip of wrought iron from a saddle tree. Originally a wooden saddle tree, formed from strips of wood, was bent to shape the leather portion of the saddle. A metal strip was nailed onto the wooden saddle tree to provide support at the saddle pommel.

Artifacts associated with agricultural hardware include three fragments of a wrought iron plow blade along with two wrought iron sickle handle, or "snath" tangs. These tangs held wooden sickle handles on the sickle frame, allowing the necessary swinging motion to harvest hay and grain crops (Figure 53).

Figure 50 Blacksmithing hot punches (above) recovered from the Structure 1 slave quarters.

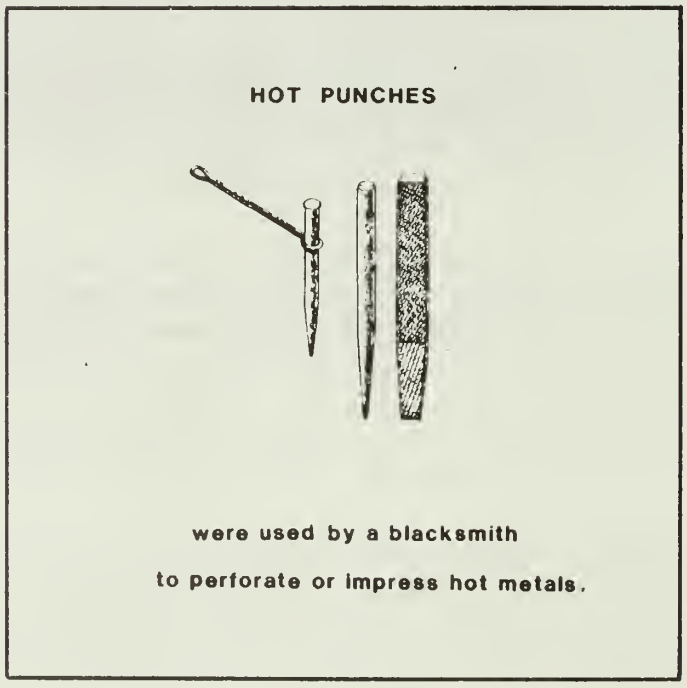


Figure 51 Fragment of a carpenter's mortise chisel (above) found at Structure 1.

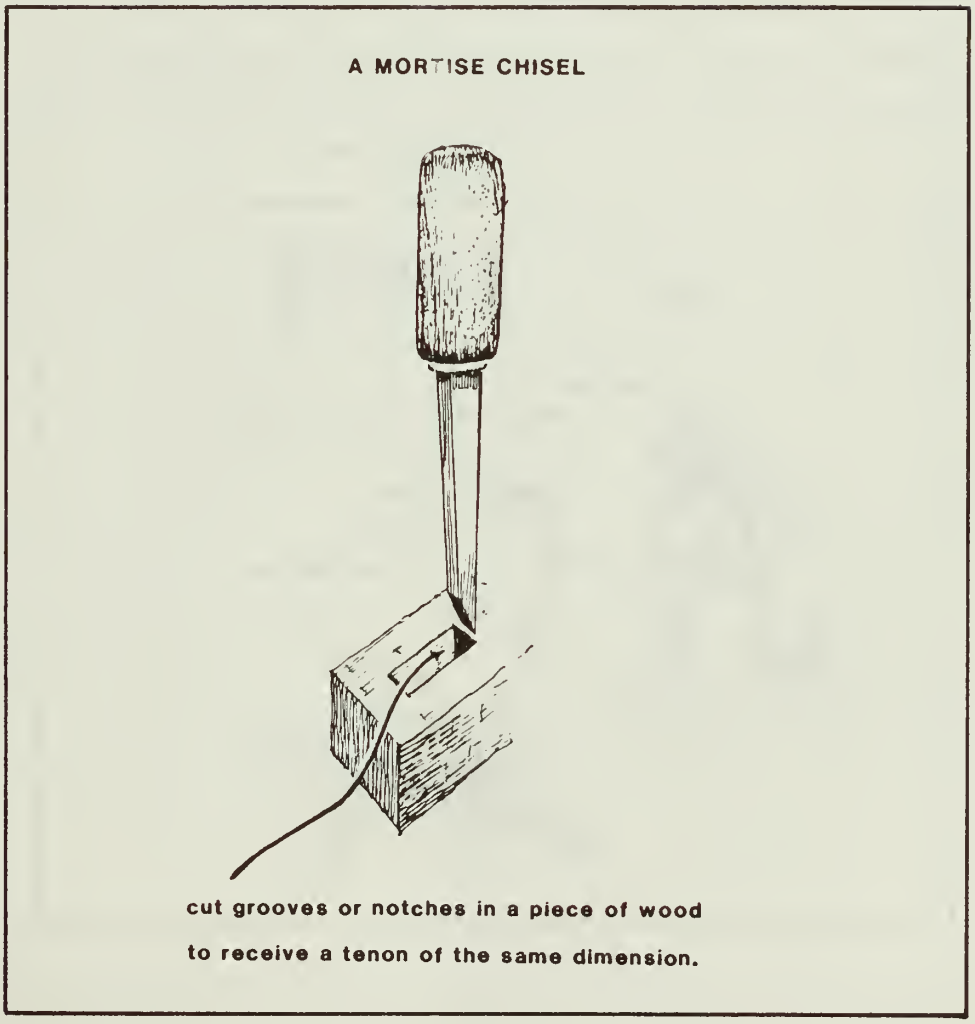
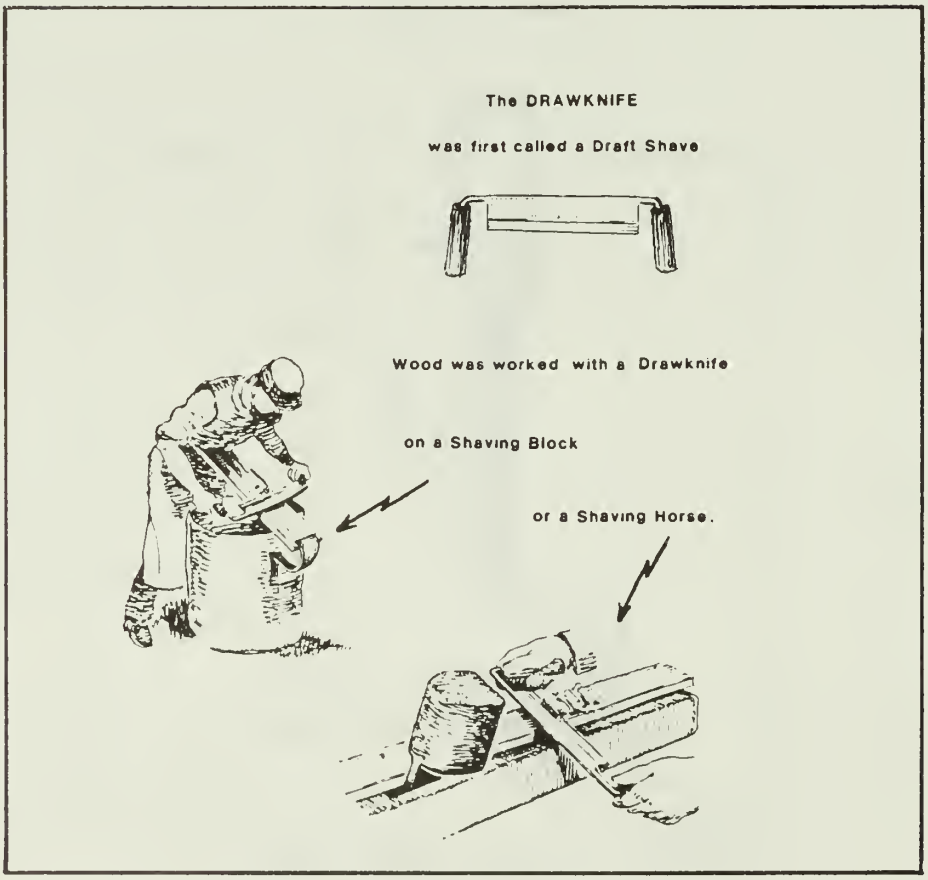


Figure 52 Portion of a carpenter's drawknife found at Structure 1 (above) may have been used by a slave trained as a craftsman or artisan.



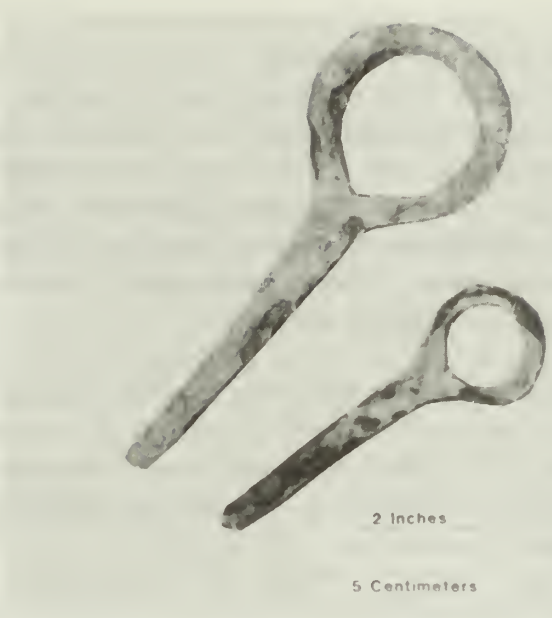
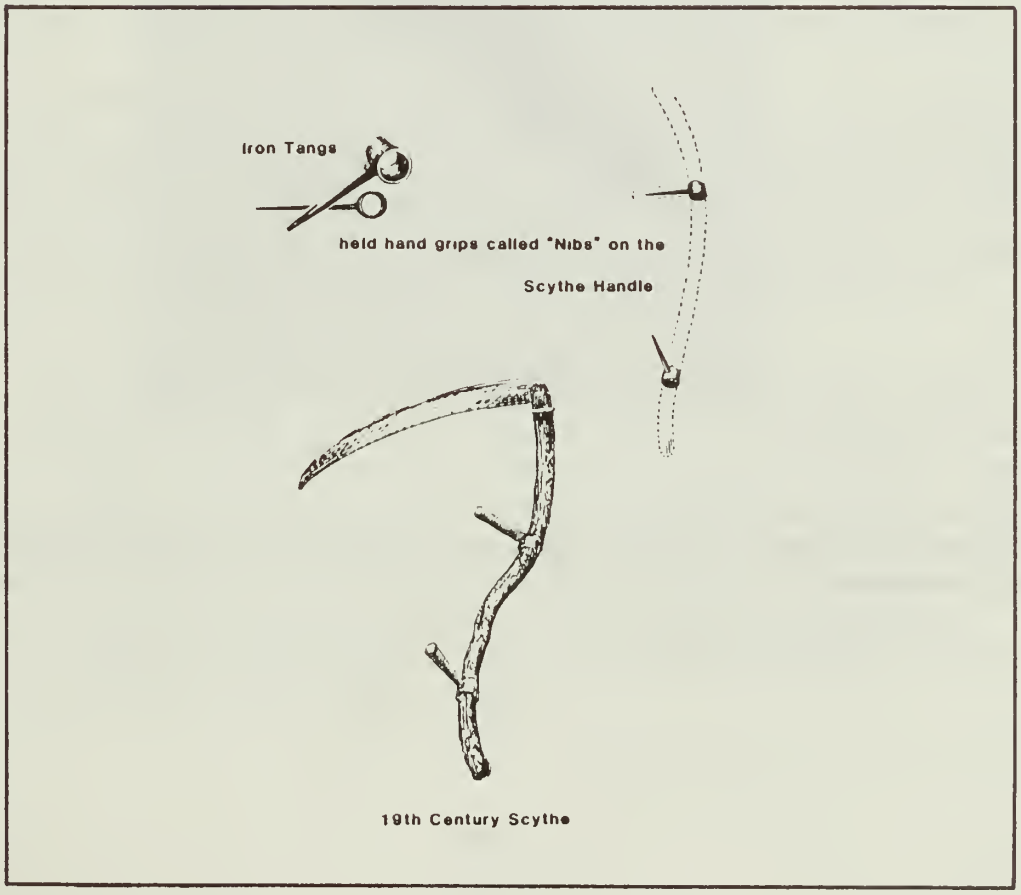


Figure 53 Scythes were traditionally used to harvest grains throughout the nineteenth century. These scythe handle tangs (above) were recovered from the Structure 1 slave quarters.



The kitchen and eating utensil assemblage consists of two cast iron cooking pot rim fragments and one footed basal fragment from a second cast iron pot or kettle. Two wrought iron S-shaped kitchen hooks were found. These would have been used to suspend cooking pots over a fire. One kitchen spoon bowl/handle fragment of wrought iron, one iron butcher-type knife blade fragment, and two iron unknown utensil handle fragments were also included in this category. Two thin, curved, iron handle fragments probably suspended a tin-coated sheet iron bucket once used to haul water or other materials.

Unlike the field slave quarters, only one tool was recovered from the refuse pit, a wrought horseshoe caulkin (heel) fragment. It was reworked into a crude chisel-like tool (Figure 54). This chisel may have replaced a broken chisel and been discarded when better implements became available for blacksmith or carpentry work.

Figure 54 This wrought iron horseshoe caulkin found in the Structure 2 refuse pit was refashioned into a chisel-like tool.

Portici

Of the 22,836 metal artifacts recovered from Portici, nails represent 20,425 of this figure. The remaining 2,411 metal artifacts include 21 diagnostic items recovered from the cellar slave quarters of Portici mansion house. A total of 621 identifiable metal objects were associated with the planter/military occupation of Portici. Fragments (534) of assorted barbed wire fencing were also identified. However, these types of barbed fencing wire (circa 1867 patent) post-date the antebellum occupation of Portici and are not included in this analysis. The remaining 1,235 objects are unidentifiable metal fragments.

Architectural hardware recovered from the cellar slave quarters includes one machine-made iron strap door hinge, one iron pintle, three fragments of a single wrought iron strap hinge, and one wrought strap hinge designed for use on a brick or stone wall. This latter hinge may have anchored a mobile iron arm from which cooking pots could be swung over the fire in the brick hearth.

Not unexpectedly, the furniture and agricultural categories are poorly represented. Five small iron furniture screws were recovered within the cellar quarters. It is impossible to determine with what type of furniture they were associated. It is also impossible to state with any certainty why one welded sheet metal cowbell, normally associated with agricultural activities, was present in the cellar. Perhaps it served as a servants' bell to summon assistance.

The cellar quarters were illuminated by at least one type of lighting device. One cast brass regulator knob from a kerosene lamp was recovered. Kerosene lamps were invented by Gesner and Young in 1846. Whale-oil and burning-fluid lamps were easily converted by replacing the old burners with kerosene flat-wick burners. These clean burning, odorless lamps and fixtures became the preferred lighting devices from the 1860s until well into the twentieth century (Moss 1988:92).

Eight kitchen utensils were recovered from the cellar slave quarters. These included one large copper-alloy cooking spoon and one long cast iron handle fragment. Six fragments of tin food cans were also recovered. Canned food was available to the public after circa 1810 in England and circa 1818 in the United States (Clark 1977:13). Four different types of canisters were invented prior to the American Civil War (Rock 1984:101). Unfortunately, it is impossible to determine which variety these poorly preserved specimens represent. Canned foods available before 1863 include sweet corn, chicken, turkey, duck, goose, and beef (May 1937:24).

The 621 identifiable metal artifacts associated with the planter/military occupation of Portici included architectural, furniture, illuminating devices, horse, and wagon hardware, kitchen/dining implements, and trade-related tools. The architectural hardware group includes 32 cast iron butt hinges, 11 machine-made shutter strap hinges, seven cast iron shutter hinge pintles, eight wrought iron door strap hinges, two door latch fragments, two cast iron skeleton keys, and four cast iron lock plates. One of these locks is a "Carpenter-pattern" lock with a key hole. Architectural construction elements include nine joist staples, one wrought interior wall support strap, and 13 very large, machine-made spikes. Fifteen fragments of rain gutter and one gutter support strap of tin-coated iron sheet metal were also recovered.

Ninety-five metal furniture hardware items were recovered. These include 64 machine-made iron wood screws, four small machine-made brass screws, and six brass upholstery tacks. One small, cast brass hinge plate, two small cast brass lock plates, two cast brass latches, one cast brass lock bolt, three cast brass latch catches from a roll top desk, one simple, cast brass furniture handle back plate, and one small cast iron furniture key were also found (Figure 55). Eight cast brass curtain rod brackets, one circular cast brass curtain hold-back, and one cast brass window identification tack were recovered from the house. The brass tack is stamped with the number "21" and bears traces of white paint (Louis Leigh, Jr. 1990: personal communication). These numbered tacks were part of a system which matched storm and screen windows to their respective house windows. This fenestration coding system was used well into the twentieth century, and is still used in many historic structures.

Figure 55 Nineteenth-century brass furniture hardware from Portici's mansion house includes this lockplate (upper left), cupboard latch catches, roll-top desk latch, and circular curtain holdback (lower left). An iron clock or desk key (center) was also found.

Portici's main house was illuminated with a variety of devices. One half of a cast iron wick trimmer suggests that candles were used in the house. Candles were typically made by women during the winter months of the eighteenth and nineteenth centuries. As a source of illumination candles required little attention, once safely mounted, other than occasionally trimming the wick to attain an unwavering light.

Evidence of a second type of lighting is a single cast brass seal ring. This seal ring would have capped the lamp reservoir and provided an opening for a burner or wick device. These reservoir-type lamps could have burned a number of different fuels. Whale-oil gave a bright, smokeless light but was expensive and difficult to obtain. Lard oil from animals was the less expensive alternative. During the first quarter of the nineteenth century, turpentine resin was obtained through a quicklime distillation process. This fluid produced a bright light with no smoke. These lamps were, however, very dangerous and exploded if sparks reached the fluid reservoir. This situation was remedied by 1826, when turpentine was diluted with alcohol. Camphene, did not give as white a light, but fewer homes were set ablaze as a result of its use (Moss 1988:86). A statement from Godey's Lady's Book (1857) that "...we consider it suicidal to have camphene lamps in a house...," suggests these lamps remained something of a fire hazard despite the improvement.

Two ornate, cast iron Franklin-type stoves heated two of the family's upper floor bedrooms (Figures 56 and 57). These are represented in the metal assemblage by eight stove fragments and two flue fragments. These early nineteenth century stoves are wedge-shaped "inserts" designed to be set back, or inserted, in an open fireplace. Smoke from the burning fuel was vented through flues which led into the chimney stacks. These stoves were manufactured by the Emerson Company in Boston, Massachusetts circa 1823. The date these stoves were manufactured is roughly the same year the house itself was completed. Spencer Ball may have purchased these new Franklin stoves to heat his new home. The two stoves apparently served the house well for they appear on Alfred Ball's 1853 estate inventory and in the circa 1863 archeological record.

Four metal trade-related implements were recovered. These include one bastard file, one unidentifiable file, one mortise chisel, and one small claw hammerhead. These tools are all made of wrought iron and are probably associated with the on-going maintenance of the house or the non-structural elements within.

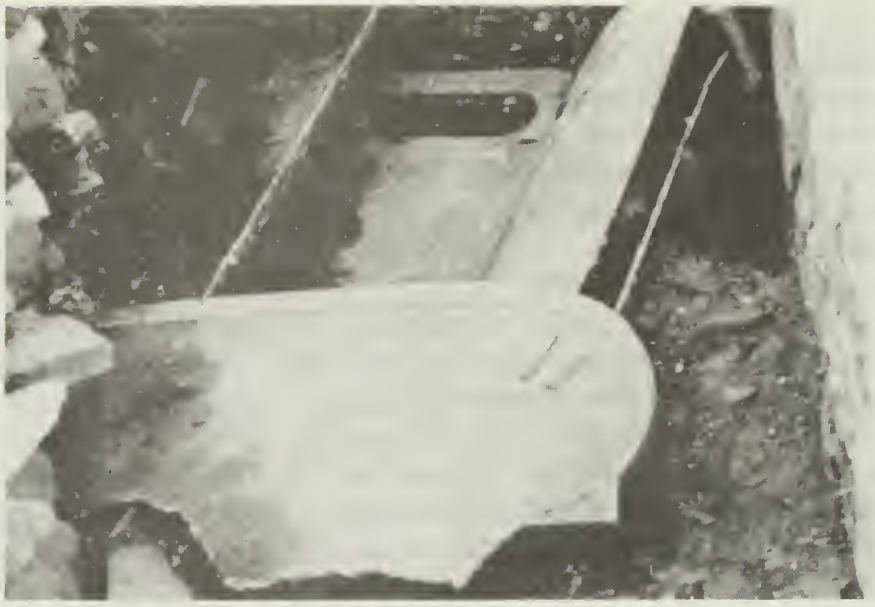


Figure 56 Archeological recovery of a cast iron Franklin-type stove which heated Portici's mansion house.

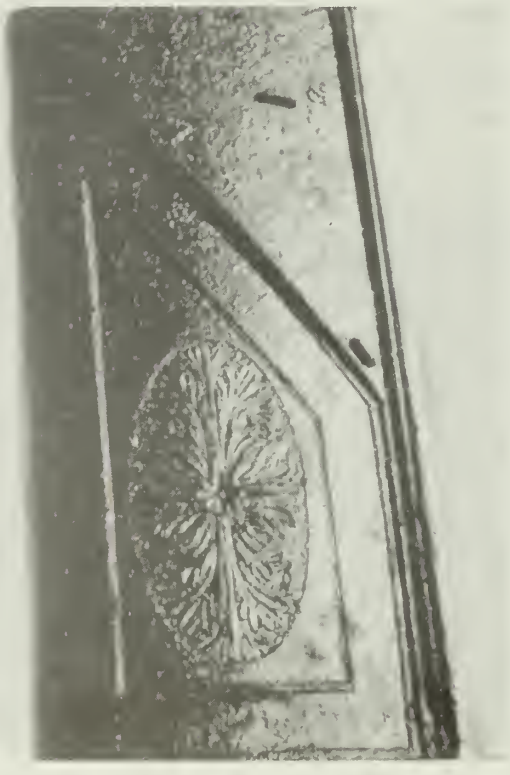


Figure 57 Detail of the intricate floral design embellishing the doors of this circa 1823 stove.

Horse and wagon hardware is represented by ten artifacts. Two machine-made horseshoes, one machine-cut horseshoe nail, four wrought iron harness fragments, and two wrought iron harness rings were recovered. One cast iron wagon or carriage bolt was also found.

A total of 407 artifacts are associated with kitchen and dining activities. This figure includes 324 fragments of metal food cans, and 43 iron sheet metal fragments. The sheet metal fragments represent at least two buckets which were probably tin-coated sheet iron (Tunis 1965:65). While buckets are not exclusively associated with kitchen and dining activities, the recovery of the bucket fragments from the detached kitchen of the mansion house suggests these buckets were employed in kitchen-related or other domestic tasks such as drawing well-water, washing dishes or floors, or watering ornamental house plants.

Dining implements recovered include three cast iron three-tined forks, three cast brass two-tined forks, one brass tablespoon bowl fragment, one iron tablespoon bowl fragment, three iron table knife blade fragments, one iron bone-handled haft fragment of an unidentifiable utensil, and one iron haft fragment (Figure 58). The kitchen utensils include two long cast brass handles, one long cast iron handle with a burlap-covered paddle, one wrought iron attachment which joined a wooden oven paddle to its handle, and one iron kitchen knife blade with a haft fragment (Figure 59). One wrought iron S-shaped cooking hook, 19 fragments of cast iron cooking pots, one cast iron cooking "spider" (frying pan) fragment, and one fragment of a cast iron trivet were also recovered.

Summary

Analysis of the metal artifacts associated with the nineteenth-century slave quarters at Pohoke has produced interesting data concerning this structure and its occupants. Architectural hardware associated with Structure 1 indicate it was sturdily-built with at least one exterior door secured by an iron Carpenter-pattern lock.

Meals were cooked in an open hearth over logs held by andirons. Cast iron kettles and pots were suspended on s-shaped hooks above the flames. The inexpensive iron spoons, forks, and knives used in Structure 1 may have been provided by the planter.

Furniture hardware recovered from Structure 1 suggests the household-goods included at least one trunk or chest, one enclosed cupboard, one mantel clock, and at least one article of furniture in the Chippendale style. While

Figure 58 Cutlery associated with Portici's mansion house includes three table knife fragments (left), the third knife retains a portion of an incised bone handle, two two-tined fork fragments (center), and two three-tined fork fragments (right).

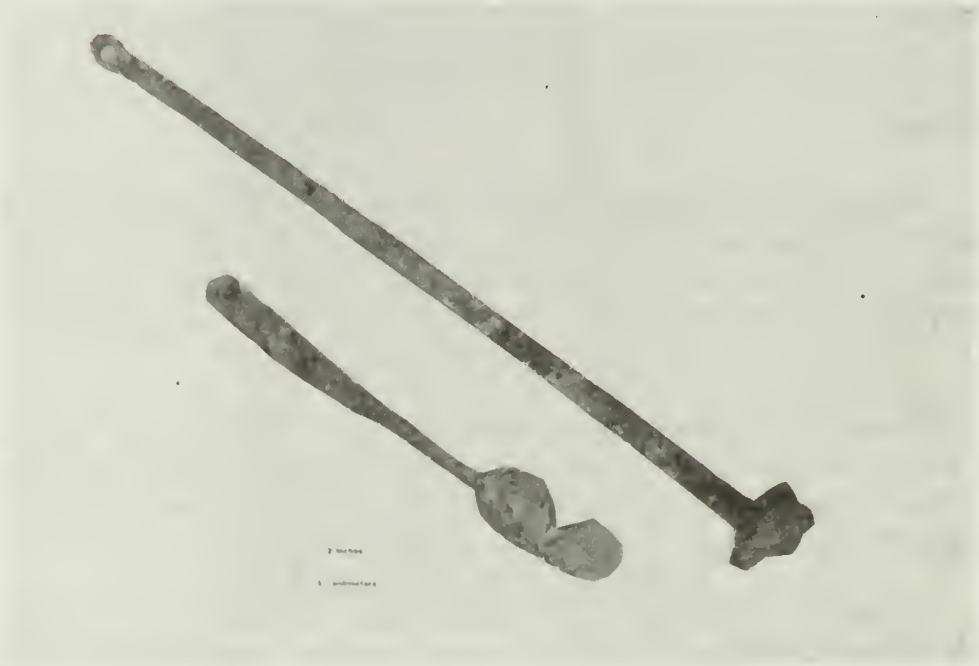


Figure 59 Iron cooking utensils recovered at Portici include this kitchen spoon (bottom) and burlap-covered oven paddle.

the presence of fine furniture and tea services may be unexpected in slave quarters, it is certainly not unheard of. The following describes a nineteenth-century Mississippi slave cabin:

> ...there was a show of neatness and luxury; high-posted bedsteads, handsomely displayed....Cupboards of Blue Liverpool Ware, coffee mills, looking glasses, tables, chairs, trunks and chests...(Genovese 1974:527).

The presence of trade-related tools associated with carpentry and small-scale blacksmithing suggests this dwelling was occupied by a skilled craftsman. Alfred Ball's valuable slave, Henry Grimes, served the plantation as a trained carpenter until at least 1853 (Prince William County Court Records, Will Book Q:158). Structure 1 may have served as his residence. The furniture present in the slave quarter may represent repair projects for the planter or the salvage or reconstruction of outmoded or discarded furnishings. The hardware recovered might also represent goods which were cleverly fashioned incorporating odd bits of hardware from other projects, provisions, purchases, or payments for tasks well done.

The assortment of agricultural tools and equipment associated with Structure 1 may represent on-going or aborted repair projects. The implements are those typically associated with multiple-grain agriculture. Equestrian hardware located in the structure may represent additional repair operations or salvaged scrap metal saved for later use. Horse hardware is often found in nineteenth-century slave quarters which are not necessarily occupied by craftsmen (Kelso and Sanford 1983:15).

Metal recovered from the Structure 2 refuse pit generated by the occupants of the slave quarter included a similar assortment of equestrian and agricultural hardware. These articles may represent a combination of domestic and trade-related refuse. Kitchen and dining utensils retrieved from Unit 137 depict typical elements associated with lower status, rural foodways.

Comparatively few metal artifacts were recovered from the cellar slave quarters in the mansion house. This sparse assemblage did suggest that some cooking was done in the quarter's hearth. Canned foods were stored, if not consumed, in these quarters as well. No evidence of dining utensils or furnishings were recovered. These items may have been evacuated with the occupants on the eve of the Battle of First Manassas. The quarters were accessed by at least one door in the jerry-built interior brick walls which divided the mansion cellar. Illumination was provided by at least one kerosene lamp.

Architectural hardware associated with the mansion house includes structural and decorative elements in a volume commensurate with a nineteenth century dwelling of this size and stature. Craft-related tools recovered from the structure are probably associated with on-going maintainance of the structure and other elements within.

Very little remained in the archeological record to suggest the variety and styles of furnishings used within the house. When the family evacuated on the eve of First Manassas they took all they could with them. Only such heavy items as the cast iron Franklin-type stoves used to heat the upper floors, large bureaus, roll-top desks, and enclosed cabinets or armoires were left behind. Common, inexpensive hardware such as curtain rod brackets, curtain hold-backs, camphene, and candle-powered lamps were also abandoned.

Carriage, wagon, and equestrian hardware represents both agricultural and domestic functions. Horse-drawn wagons delivered supplies to the storage areas beneath and surrounding the main house. Carriage and horse traffic routinely transported family members and guests. A portion of this assemblage was also contributed during the military occupation of the plantation.

Metal recovered from the south dependency suggests meals were cooked in frying pans and in large cast iron pots suspended from S-shaped hooks or baked in an oven in Portici's detached winter kitchen. A good supply of canned foods was stocked or consumed in this area. Brass and iron forks, spoons, and table knives were apparently used as daily tableware by the planter family.

11 DIETARY REMAINS

Of the cultural remains recovered from Pohoke and Portici, faunal and floral material constitutes five and 15 percent of the total assemblages, respectively. At Pohoke, site 44PW335, this material was generated by the nineteenth-century Portici slaves residing at Structure 1. The faunal remains recovered at Portici, site 44PW348, reflect the dietary remnants of the domestic servants or slaves. The faunal refuse generated by the wounded Confederate and Union soldiers, and those who tended them, during the late summer of 1861 is also contained in this latter assemblage. The faunal assemblage from the planter family diet was not located during the course of excavation. Presumably it would have been disposed of in a refuse pit well away from the house. Faunal material recovered from the surface collection at both sites was not included in this analysis.

Faunal and floral materials were recovered in a good state of preservation. Wild and domestic mammals and birds are present along with mollusks, fish, reptiles, seeds, fruit pits, and legumes. All faunal and floral remains were quantified, sorted by category and type, and divided into genus and species when possible. Reference materials consulted included Olsen 1964, 1968, and 1979; Gilbert 1973; Klein and Cruz-Uribe 1984. In-house and private mammalian and avian anatomical study collections were also used extensively. The minimum number of individual animals represented by the bone fragments was then calculated. Avian egg shell fragments were weighed to determine the minimum number of eggs represented. A contemporary, dry, Grade A, chicken egg shell weighs approximately 4.33 grams. This weight was used to calculate the minimum number of eggs present.

Finally, all faunal remains were examined for evidence of modification. The types of modification include butcher marks created by axes, cleavers, saws, knives or other tools; splitting; burning; polishing; or scavenging by carnivores and/or rodents. These forms of modification provide crucial information concerning the types of cuts of meat and suggest the method of preparation.

The number and variety of animals, as well as the method of butchering and preparation are all critical elements in establishing the economic status, caliber of life, and often the ethnicity of the group which consumed the food. These elements must, however, be examined in conjunction with all the other cultural remains with which they were associated.

Pohoke

The faunal assemblage recovered from Pohoke (Table 11.1) represents the dietary refuse of the nineteenth-century slave occupation of Structure 1. It does not appear to be associated with the occupants of Structure 2, the eighteenth-century dwelling house which was abandoned and dismantled by the 1820s and converted to a refuse pit. A total of 2,058 fragments (minus mollusca and floral totals) were recovered. Of these, 74% are mammalian, 17% avian, less than one percent are fish, and ten percent are unidentifiable. Seventy riverine clam shell fragments and 139 marine oyster shell fragments were also recovered. Mollusks represent nine percent of the faunal assemblage. Very little evidence of the vegetables and fruits consumed by the residents of Structure 1 was found. Eleven peach pits, probably from the fruit orchard located several hundred feet northwest of the quarters, were recovered. In addition, a single charred legume was also collected.

The faunal material discarded from the early 1820s through circa 1861 by these Virginia Piedmont slaves suggests that meat was readily available to, and provided for them. No records have been found to date which indicate the other foods consumed by the residents of this plantation. Rations of plantation-grown grains probably formed the mainstay of their diet. Corn, wheat, and oats were all staple crops throughout this area of the Piedmont. Small gardens may have been cultivated by the slaves adding green, yellow, and tuberous vegetables to their meals (Otto 1984:59-60).

The predominant source of animal protein for these Portici slaves was domestic mammal. Swine dominate the assemblage representing 19% of the mammals consumed. A minimum of five swine are included in the assemblage. The low frequency of complete swine skeleton suggests that the pigs were slaughtered elsewhere and the pork distributed to the slaves (Lyman 1987:58-66). Only the poorer cuts of swine meat are present (Figure 60).

Fifty percent of the swine remains are butcher-marked. The slaves apparently prepared the pork cuts by chopping or cutting the bones open with ax or cleaver. This technique increases the nutritional value of a limited meat supply by utilizing the rich marrow. It also suggests that one-pot meals or stews formed a substantial portion of the meals in Structure 1. Pork jowls, fatback, forefoot, and hindfoot were also frequently served. Butcher-marked mandible and skull fragments suggest headcheese or scrapple may have been common fare.

TABLE 11.1 Pohoke Dietary Analysis

CATEGORY	TYPE	NUMBER OF FRAG.	PERCENT OF: TOTAL	PERCENT OF: CATEG.	FRAGMENTS MODIFIED: CUT	SAWN	FILED	SPLIT	NONE	MINIMUM NUMBER OF INDIVIDUALS: DIETARY: ADULT	JUVENILE	UNK.	NON-DIETARY: ADULT	JUVENILE	UNK.
MAMMALIA	CATTLE	30	1.32%	1.98%	13	0	0	9	8	0	0	2	0	0	0
	HORSE	3	0.13%	0.20%	0	0	0	0	3	0	0	0	2	0	0
	SWINE	281	12.39%	18.54%	140	0	1	0	140	4	1	0	0	0	0
	GOAT/SHEEP	29	1.28%	1.91%	7	0	0	0	22	2	1	2	0	0	0
	DOG	9	0.40%	0.59%	0	0	0	0	9	0	0	0	1	0	0
	WOODCHUCK	1	0.04%	0.07%	0	0	0	0	1	0	0	1	0	0	0
	RACCOON	3	0.13%	0.20%	0	0	0	0	3	0	0	1	0	0	0
	SKUNK/FOX	4	0.18%	0.26%	0	0	0	0	4	0	0	1	0	0	0
	COMMON RABBIT	2	0.09%	0.13%	0	0	0	0	2	0	0	1	0	0	0
	WOOD RAT	2	0.09%	0.13%	0	0	0	0	2	0	0	0	0	0	1
	HOUSE MOUSE	5	0.22%	0.33%	0	0	0	0	5	0	0	0	0	0	2
	UNID. LARGE MAMMAL	106	4.67%	6.99%	74	0	0	0	32	3	1	1	0	0	0
	UNID. SMALL MAMMAL	36	1.59%	2.37%	4	0	0	0	32	0	0	1	0	0	0
	UNID. MAMMAL	1005	44.31%	66.29%	393	0	0	0	612	0	0	1	0	0	0
	SUBTOTAL	1516	66.84%		631	0	1	9	875	9	3	11	3	0	3
AVES	CHICKEN	26	1.15%	7.62%	1	0	0	0	25	0	0	2	0	0	0
	ROOSTER	1	0.04%	0.29%	0	0	0	0	1	0	0	1	0	0	0
	ROOSTER/MALE TURKEY	2	0.09%	0.59%	0	0	0	0	2	0	0	1	0	0	0
	DUCK	3	0.13%	0.88%	0	0	0	0	3	0	0	1	0	0	0
	UNID. AVES	309	13.62%	90.62%	45	0	0	0	264	0	0	1	0	0	0
	SUBTOTAL	341	15.04%		46	0	0	0	295	0	0	6	0	0	0
	EGG SHELLS - # EGGS	<1	0.04%		-	-	-	-	-	-	-	-	-	-	-
	- (GRAMS)	(0.55)													
PISCES	UNID. FISH	3	0.13%	100.00%	0	0	0	0	3	0	0	1	0	0	0
MOLLUSCA	RIVERINE CLAMS	70	3.09%	33.49%	-	-	-	-	-	-	-	-	-	-	-
	MARINE OYSTERS	139	6.13%	66.51%	-	-	-	-	-	-	-	-	-	-	-
	SUBTOTAL	209	9.22%		-	-	-	-	-	-	-	-	-	-	-
UNID.	FRAGMENTS	198	8.73%	100.00%	39	0	0	0	159	0	0	0	0	0	0
FAUNAL TOTAL		2268			716	0	1	9	1332	9	3	18	3	0	3
FLORAL	PEACH PITS	11													
	CHARRED LEGUME	1													
FLORAL TOTAL		12													

H. Bonnette

M. Richardson

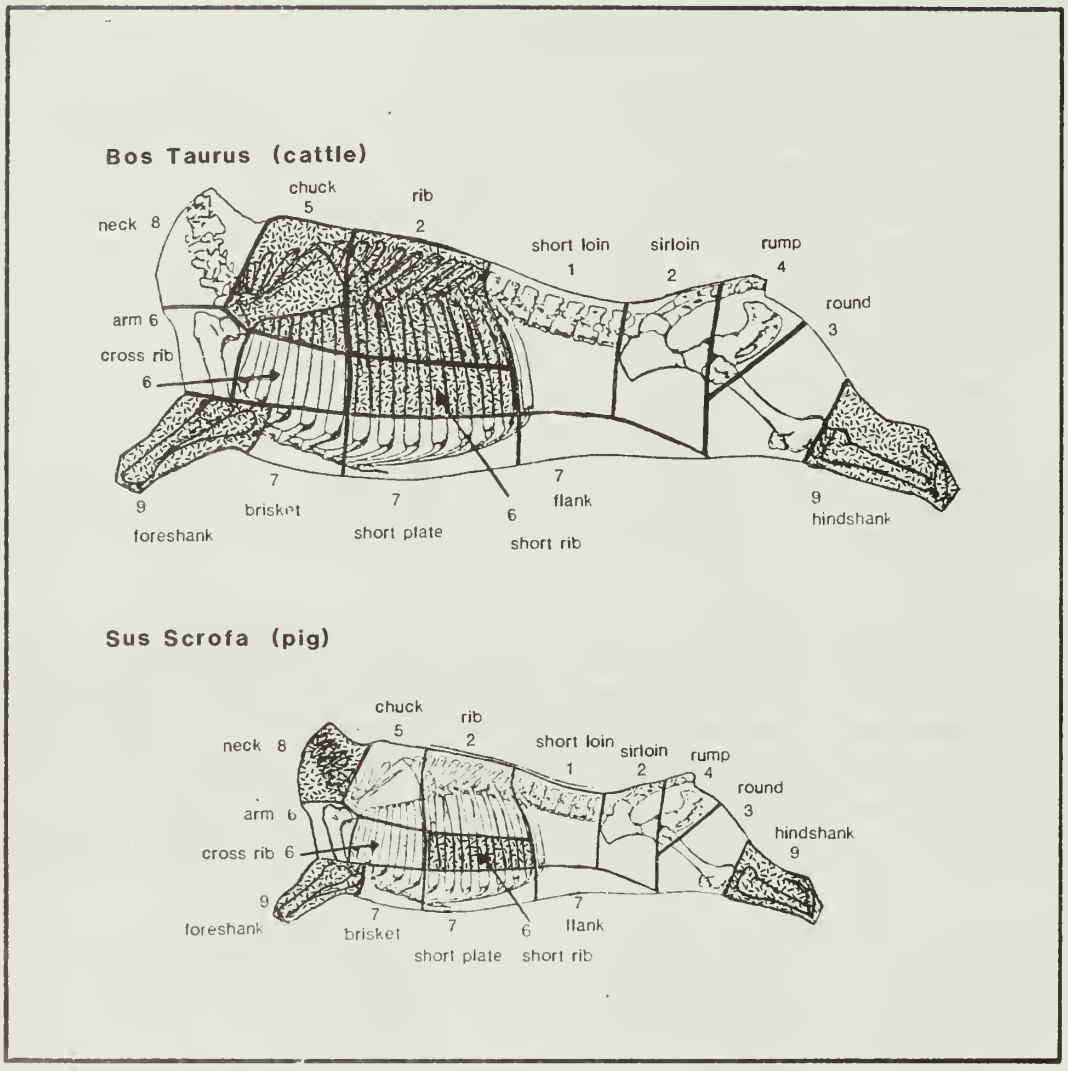


Figure 60 Common butcher cuts. Shaded areas indicate meat cuts consumed by the occupants of the Structure 1 slave quarters. Numbers correspond with preferred nineteenth-century meat cuts based on retail values (see Gust 1980).

Headcheese or "souse" is made primarily from hogs heads. Some recipes also include hogs feet along with the head meat (Mildred Imlay 1989:personal communication). To prepare headcheese the hog skull is first cleaned and then halved or quartered with an ax. The eyes are removed and discarded. The brains and tongue are removed to be cooked and eaten separately. Jowls are often removed as well and used in sausage or salted and cured like hams. The cleaved skull is soaked to remove any residual blood and then boiled in a pot of water until the meat separates from the bones. The cooked head meat, including the ears and the snout, is chopped or shredded and seasoned. The headcheese which is not immediately consumed is typically stored in stoneware jars or crocks (Wigginton 1972:202,204).

Similar steps are followed in preparing hogs heads for scrapple. Corn meal is added to this cooked head meat and the mixture is placed in a mold. The scrapple is then sliced and fried for meals (Wigginton 1972:203).

It is not unexpected that pork dominates the domestic faunal material. Swine are extremely efficient stock, producing the greatest nutritional return for the feed and time invested. When compared to sheep and cattle (Table 11.2), swine have the shortest gestation period, produce larger litters, gain more weight per pound of feed, can be slaughtered at a younger age, and yield the highest percent of usable meat per animal (Smith 1976:263).

TABLE 11.2 Comparative Livestock Data

Stock	Swine	Sheep	Cattle
Gestation Period	15 weeks	20 weeks	36 weeks
# of Young	8 or more	1 or 2	1
Lbs. of Feed Per Lb. of Weight Gained	3 to 5 lbs.	7 to 8 lbs.	10 lbs.
% Energy Stored of Food Consumed	35%	11%	11%
Minimum Age At Slaughter	6 mos.	2 mos.	15 mos.
% of Usable Meat	65 to 80%	44 to 55%	50 to 60%

(adapted from Towne and Edwards 1950)

Cattle are also present in the slave-generated faunal assemblage. Cattle comprise two percent of the domestic animals consumed. At least two cattle are represented in the collection. Seventy-three percent of these bones are butcher-marked. Of these, 30% are sheared (split-apart) and 43% are chopped with an ax or cleaver. Again, due to the low ratio between the number of fragments and the number of individuals, these cuts of beef were probably procured rather than butchered by the slaves. The planter most likely had the cattle butchered and distributed the poorer beef portions to the slaves (Figure 60). The bone fragments are too splintered to identify the precise cuts of meat involved beyond ribs, back, legs, and feet.

The faunal remains of sheep and goats are very difficult to distinguish from one another. There were, however, at least five individuals of one species, presumably sheep, in this assemblage. Sheep would have been a more lucrative investment, providing a wool crop every spring as well as protein. In addition, Alfred Ball's retention of a herd of 700 sheep until the dissolution of his estate in 1853 (Prince William County Court Records Will Books Q,R:159) and the Lewises subsequent payment of taxes on sheep throughout the remaining portion of that decade (Prince William County Personal Property tax Records 1853-1860) further suggest the species recovered is sheep rather than goat. Apparently, mutton was included in the slaves' diet on occasion. Only seven of the 29 fragments show any evidence of chopping. The remaining fragments are unmodified.

Faunal assemblages are notoriously biased in their representation of a complete dietary sample. Brine-cured meats were typically de-boned to retard spoilage (Reitz, et.al. 1985:169). Salt beef and pork were common rations allocated to plantation slaves from the sea coast to the western frontier. These dietary components leave virtually no trace in the archeological record. Confirmation of these dietary staples must therefore be obtained from the written records.

Avian remains in the slave faunal assemblage, represent 17% of the dietary material recovered. One wild duck was recovered in addition to at least four chickens. The relatively low frequency of domestic avian remains suggests that the poultry probably provided more nutritional value for the slaves through their production of eggs than as meat. Along the southeast coast and elsewhere in Virginia, slaves often raised chickens for food as well as for a source of "ready cash" (Carter 1834:564-565). Slave-raised poultry was often bought by the planter for his own table (Otto 1984:58,145).

To a small degree the slaves supplemented their diet with game. The remains of at least one woodchuck, one raccoon, one rabbit, and one fox are included in the assemblage. Excavations at plantation slave quarters throughout the southeast have consistently noted the presence of game in slave related refuse (Otto 1984; Singleton 1985). Often the food rations provided by the planters did not meet the nutritional needs of nursing mothers, growing children, and laboring men. Hunting the local game provided a means to meet this demand. Such actvity does not seem to be the case at the Portici slave quarters, Structure 1. The paucity of game here suggests that either supplementation was not necessary or there was no leisure time available to the slaves for hunting. The documentation available (Davis 1802) lends credence to the theory that sufficient meat was provided by the planter family for the slaves at Portici and supplemental hunting was not necessary.

Fresh fish apparently did not play an important role in the field slaves diet. This is surprising since at least three streams supporting dense fish and mollusk populations, particularly perch (also referred to as bluegill) and fresh water clams, are close to the site area. There was either no need and desire, or no time, to reap a more substantial riverine harvest. The percentage of distributed domestic animals in this assemblage suggests there was no need. With no specific written documentation available concerning the diet of these slaves, it is impossible to determine whether salt fish was included on the menu because salted fish leaves virtually no trace in the archeological record (Crader 1983:31). The oysters recovered were more than likely purchased, probably in the Alexandria or Occoquan areas. They may have been distributed as rations or purchased by the slaves.

Another possible explanation for the paucity of fish in this assemblage is disposal other than in the cellar-turned-trash pit. A large herd of hogs was kept on the plantation. Fish scraps may have been fed to the hogs along with other rubbish. Swine are very efficient creatures, converting one-fifth of what they consume into meat (Otto 1984:58). Food scraps and other organic refuse would be well invested when disposed of in this manner.

Portici

The faunal assemblage recovered from Portici was the result of two distinct occupations. The first faunal assemblage was generated by the domestic servant/house slaves (Table 11.3). The brief use of the house as a Confederate field hospital in 1861 resulted in the second episode of faunal deposition (Table 11.4). These faunal remains will be discussed separately.

TABLE 11.3 Portici Domestic Slave Dietary Analysis

CATEGORY	TYPE	NUMBER OF FRAG.	PERCENT OF: TOTAL	PERCENT OF: CATEG.	FRAGMENTS MODIFIED: CUT	SAWN	FILED	SPLIT	NONE	MINIMUM NUMBER OF INDIVIDUALS: DIETARY: ADULT	JUVENILE	UNK.	NON-DIETARY: ADULT	JUVENILE	UNK.
MAMMALIA	CATTLE	11	0.69%	5.95%	4	0	0	0	7	0	0	1	0	0	0
	UNID. LARGE MAMMAL	8	0.50%	4.32%	6	0	0	0	2	0	0	1	0	0	0
	UNID. SMALL MAMMAL	100	6.27%	54.05%	0	0	0	0	100	0	0	1	0	0	0
	UNID. MAMMAL	66	4.14%	35.68%	1	0	0	0	65	0	0	1	0	0	0
	SUBTOTAL	185	11.61%		11	0	0	0	174	0	0	4	0	0	0
AVES	CHICKEN	55	3.45%	34.59%	1	0	0	0	54	0	0	2	0	0	0
	KINGFISHER	2	0.13%	1.26%	0	0	0	0	2	0	0	1	0	0	0
	LITTLE BLUE HERON	1	0.06%	0.63%	0	0	0	0	1	0	0	1	0	0	0
	UNID. AVES	101	6.34%	63.52%	2	0	0	0	99	0	0	1	0	0	0
	SUBTOTAL	159	9.97%		3	0	0	0	156	0	0	5	0	0	0
	EGG SHELLS - # EGGS	11	0.69%		-	-	-	-	-	0	11	0	0	0	0
	- (GRAMS)	(48.4)													
PISCES	PERCH	3	0.19%	0.39%	0	0	0	0	3	0	0	1	0	0	0
	UNID. FISH	776	48.68%	99.61%	0	0	0	0	776	0	0	1	0	0	0
	SUBTOTAL	779	48.87%		0	0	0	0	779	0	0	2	0	0	0
MOLLUSCA	RIVERINE CLAMS	114	7.15%	80.28%	-	-	-	-	-	-	-	-	-	-	-
	MARINE OYSTERS	28	1.76%	19.72%	-	-	-	-	-	-	-	-	-	-	-
	SUBTOTAL	142	8.91%		-	-	-	-	-	-	-	-	-	-	-
UNID.	UNMODIFIED	220	13.80%	69.18%	1	0	0	0	219	0	0	0	0	0	0
	GYPSUM COATED	98	6.15%	30.82%	0	0	0	0	98	0	0	0	0	0	0
	SUBTOTAL	318	19.95%		1	0	0	0	317	0	0	0	0	0	0
	FAUNAL TOTAL	1594			15	0	0	0	1579	0	0	11	0	0	0
FLORAL	PEACH PITS	56													
	CARBONIZED SEEDS	2													
	UNID. SEEDS	5													
	FLORAL TOTAL	63													

H. Bonnette

M. Richardson

The faunal material generated by the slave occupation in the cellar quarters of Portici was sampled through the excavation of Unit 1 (these figures are subtracted from within the total slave faunal assemblage in Table 11.3). Insights regarding the diets of the domestic slaves were gathered from the 628 bone fragments recovered from this unit. Fish bones comprise 42% of this assemblage. The remaining identifiable fragments included avian, representing ten percent of the collection, and domestic mammals comprising four percent. No wild game was identified in this collection which represents 57% of the total faunal assemblage associated with Portici's domestic slaves.

With the exception of a single cranium, the avian assemblage is comprised exclusively of long bone fragments. At least one chicken and one unidentified bird are represented. Only three of the avian bone fragments are cut. The high number of unmodified avian bones suggests the birds were prepared by roasting or frying. The absence of light meat portions may indicate that the planter family dined on avian breast meat while the servants below consumed the dark meat. Future excavation of the planter family refuse would substantiate this speculation.

One vertebra and seven long bone fragments of one large unidentified mammal, probably a cow, are present. Six of these fragments have been chopped with an ax or cleaver (Figure 61). The remaining assemblage contains 94 bone fragments of small unidentifiable mammals, and 12 fragments of unidentified mammals. The remaining portion of the Unit 1 assemblage contained 26 oyster shell fragments, 114 riverine clam shell fragments, and seven unidentified seeds.

A pattern quite different from that encountered in the refuse generated by the slaves of Structure 1 is found in the cellar quarters trash found in Unit 1. This is not unexpected given the implied status difference between field and house slaves. The location of the cellar quarters within the planters' residence probably influenced not only the foods consumed but certainly affected the refuse disposal patterns. Primarily small, inconspicuous, faunal remains were recovered from the cellar. It seems likely, therefore, that the bulk of the refuse was disposed of elsewhere. Some percentage of the food consumed by the cellar occupants may also have been "left-over" from the planters table. It is unclear where the food consumed in the cellar quarters was prepared.

Ninety-two extremely small, unidentifiable avian and mammalian bone fragments coated with gypsum were also recovered from the cellar quarters area. The sandstone walls of the cellar were pargeted, sealing them against moisture while brightening the interior. Gypsum plaster was used to thinly coat the walls. This may have dripped on bones already strewn about the cellar. The bones may have been added to the plaster, or covered with it intentionally. The purpose of

such procedures in not known. Small bone fragments covered with whitewash or gypsum plaster have also been recovered from the archeological excavation of Slave Quarter O at Monticello (Crader 1984:11) and the cellar beneath the "House for Families" slave quarter at Mount Vernon (Matthew Mosca 1985:personal communication).

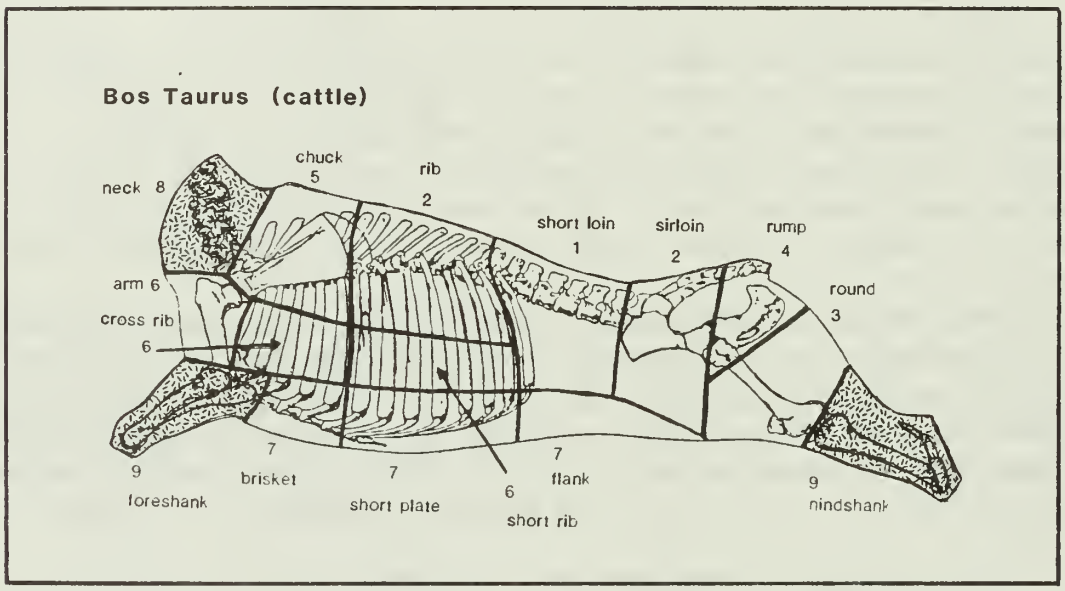


Figure 61 Common butcher cuts. Shaded areas indicate meats cuts consumed by Portici's domestic slaves. Numbers correspond with preferred nineteenth-century cuts of meat based on retail values (see Gust 1980).

A total of 813 fragments of slave-generated refuse were recovered in the vicinity of the south dependency/detached summer kitchen. Fish dominate this assemblage representing 63% of the faunal material. At least three of these fish are perch.

Avian remains constitute 12% of this assemblage. At least two chickens, one Kingfisher, one Little Blue Heron, and one unidentifiable large bird are included. Mammals comprise nine percent of this refuse. A minimum of one cow and three unidentified, but probably domestic, animals are present. Sixteen percent of this collection is unidentifiable. Of these 129 fragments, six are coated with gypsum.

The only form of butchering exhibited in this faunal assemblage are cut-marks from knives. These marks are present on 15% of the mammal bones and on a single chicken bone.

Fifty-six peach pits from the planter family orchard were recovered. Shell fragments from at least 11 avian eggs, probably chicken eggs, were recovered. Two oyster shells were also present.

The faunal material associated with Portici's house slaves is somewhat distorted. These slaves probably mirrored the formal waste disposal practises of the main house. In spite of this distortion, obvious dietary differences appear between the individuals residing in the planters' cellar and the slaves inhabiting Structure 1 across the field (see Figure 30).

The second episode of faunal deposition was the result of military occupation (Table 11.4). Portici was occupied by Brig. Gen. Joseph E. Johnston during the day-long Battle of First Manassas on July 21, 1861. The house next served as a Confederate field hospital over the weeks which followed. Confederate troops moved out of the area towards Culpeper, Virginia, in the late winter of 1862. There followed intermittent, short-term occupations of the house by Union officers from March 1862 until it burned sometime in 1863.

The Confederate soldiers and "inmates" of Portici hospital received irregular rations of "rice, cornmeal and some meat". Boiled rice was the main fare for the men who could eat. It was served, in the absence of tableware ..."like a mud pie on a shingle - shingle to be returned in all cases." (Gray 1861:7). The limited food supply was soon exhausted by the sheer number of people present. At least 48 Confederate and Federal wounded were convalescing or dying in the mansion house during July 1861 (Ricketts 1861:3). Meager rations were supplemented with food scavenged from the woods or plantation and donated by charitable neighbors and Confederate doctors and officers.

TABLE 11.4 Portici Military occupation Dietary Analysis

CATEGORY	TYPE	NUMBER OF FRAG.	PERCENT OF: TOTAL	PERCENT OF: CATEG.	FRAGMENTS MODIFIED: CUT	SAWN	FILED	SPLIT	NONE	MINIMUM NUMBER OF INDIVIDUALS: DIETARY: ADULT	JUVENILE	UNK.	NON-DIETARY: ADULT	JUVENILE	UNK.
MAMMALIA	CATTLE	50	2.98%	10.04%	3	0	0	0	47	0	0	1	0	0	0
	WHITE TAILED DEER	3	0.18%	0.60%	0	0	0	0	3	0	0	1	0	0	0
	SWINE	42	2.50%	8.43%	0	0	0	0	42	0	0	1	0	0	0
	RACCOON	42	2.50%	8.43%	0	0	0	0	42	0	1	0	0	0	0
	WOODCHUCK	18	1.07%	3.61%	0	0	0	0	18	0	0	1	0	0	0
	GREY FOX	1	0.06%	0.20%	0	0	0	0	1	0	0	1	0	0	0
	OPOSSUM	2	0.12%	0.40%	0	0	0	0	2	0	0	1	0	0	0
	COMMON RABBIT	109	6.49%	21.89%	0	0	0	0	109	1	1	0	0	0	0
	EASTERN FOX SQUIRREL	8	0.48%	1.61%	0	0	0	0	8	0	0	1	0	0	0
	UNID. LARGE MAMMAL	20	1.19%	4.02%	12	0	0	0	8	0	0	1	0	0	0
	UNID. SMALL MAMMAL	203	12.08%	40.76%	1	0	0	0	202	0	0	1	0	0	0
	SUBTOTAL	498	29.64%		16	0	0	0	482	1	2	9	0	0	0
AVES	CHICKEN	81	4.82%	48.21%	16	0	0	0	65	0	0	3	0	0	0
	UNID. AVES	87	5.18%	51.79%	0	0	0	0	87	0	0	1	0	0	0
	SUBTOTAL	168	10.00%		16	0	0	0	152	0	0	4	0	0	0
	EGG SHELLS - # EGGS - (GRAMS)	13 (55.2)	0.77%		-	-	-	-	-	0	13	0	0	0	0
PISCES	UNID. FISH	72	4.29%	100.00%	0	0	0	0	72	0	0	1	0	0	0
REPTILA	UNID. TURTLE	1	0.06%	100.00%	0	0	0	0	0	0	0	1	0	0	0
MOLLUSCA	RIVERINE CLAMS	2	0.12%	1.40%	-	-	-	-	-	-	-	-	-	-	-
	MARINE OYSTERS	141	8.39%	98.60%	-	-	-	-	-	-	-	-	-	-	-
	SUBTOTAL	143	8.51%		-	-	-	-	-	-	-	-	-	-	-
UNID.	BURNED FRAGMENTS	122	7.26%	15.54%	0	0	0	0	122	0	0	1	0	0	0
	UNBURNED FRAGMENTS	663	39.46%	84.46%	20	1	0	0	642	0	0	1	0	0	0
	SUBTOTAL	785	46.73%		20	1	0	0	764	0	0	2	0	0	0
	FAUNAL TOTAL	1680			52	1	0	0	1627	1	2	17	0	0	0
FLORAL	PEACH PITS	11													
	CHARRED BEAN	1													
	UNID. SEEDS	19													
	FLORAL TOTAL	31													

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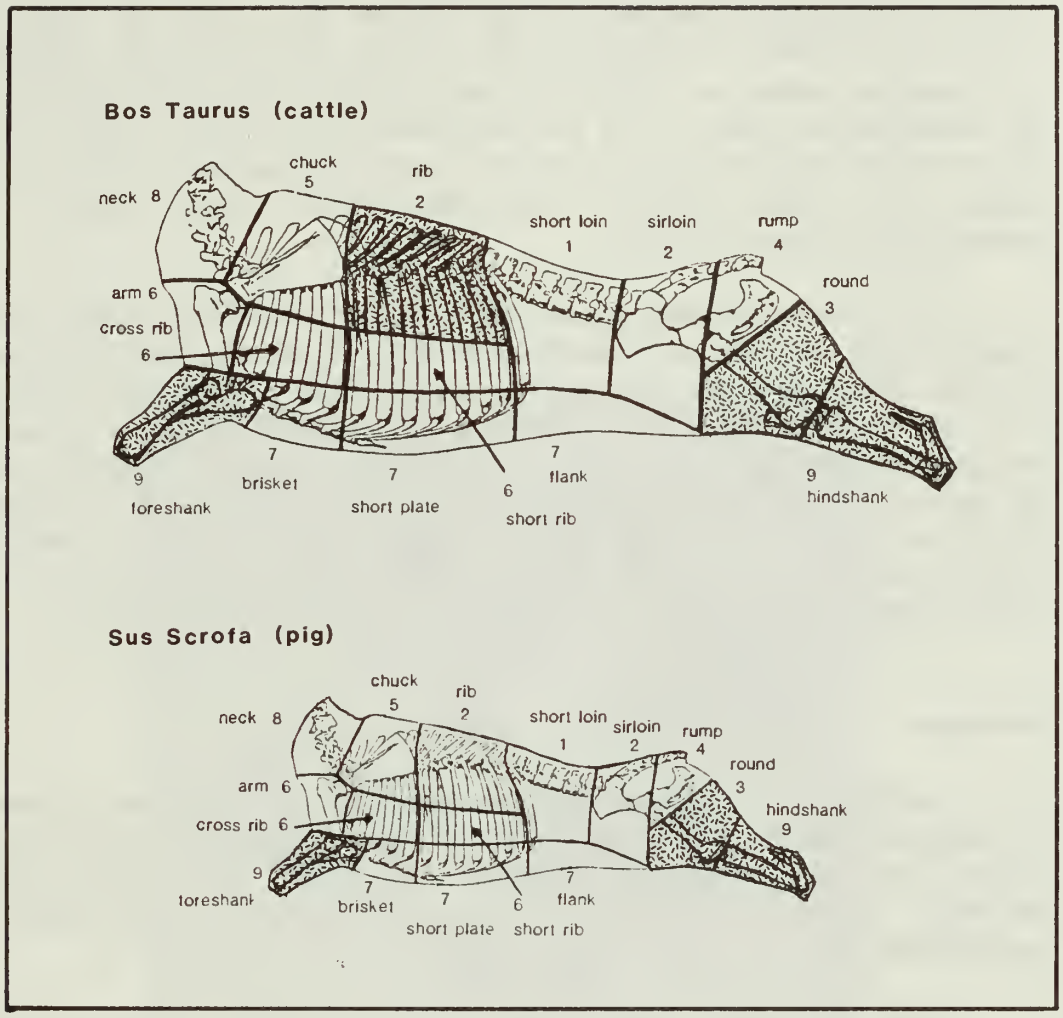


Figure 62 Common butcher cuts. Shaded areas indicate meat cuts consumed by military occupants of Portici. Numbers correspond with preferred nineteenth-century cuts of meat based on retail values (see Gust 1980).

In the diary kept by Mrs. Fanny Ricketts while she nursed her wounded husband, James, at Portici, she often mentions the kind-hearted women residing nearby. These ladies brought chickens, squirrel pies, goose and chicken soup, beef, and eggs. These "delicacies" were a welcome and nutritious addition to the hard crackers, boiled rice, and coffee which had come to form the mainstay of the convalescents' diet. As a courtesy, several Confederate officers sent the Rickettes tea, cocoa, butter, jam, chickens, and an occasional bottle of brandy or claret. All of these delicacies were shared with Captain Ricketts' hospital roommates (Ricketts 1861:2-6).

The faunal assemblage recovered from Portici's military period includes at least one cow, one hog, and a minimum of three chickens. Cuts of both pork and beef had been butchered with either an ax or cleaver, rather than a saw (Figure 62). At least one white-tailed deer, one raccoon, one woodchuck, two rabbits, one grey fox, one squirrel, one opossum also found their way onto the menus of the wounded or encamped soldiers. The remnants of at least one unidentified turtle, one fish, two riverine clam, and 141 marine oysters were also present. Eleven peach pits, one charred bean, 19 unidentified seeds, and at least 13 avian eggs (probably chicken eggs) were associated with the field hospital.

Summary

Analysis of the small, slave-generated faunal assemblage has revealed some intriguing information. Domestic meats in the form of swine, cattle, sheep, and chicken were apparently the mainstay of the slave diet at this frontier Piedmont plantation. There was relatively little exploitation of the local environment as a supplemental food source.

Status differences between house and field slaves is apparently reflected through diet. The cuts of meat and method of preparation suggest the diet of the house slaves more closely resembled that associated with planter-status refuse recovered from other contemporary plantations (Figure 63; Kelso and Sanford 1983; Smith 1976: Reitz, Gibbs and Rathbun 1985). The field slaves residing at Pohoke's Structure 1 generally consumed poorer cuts of meat most often prepared as a stew or one-pot meal (Figure 64). There is no indication of meats or meals prepared directly in the hearth. While the field slaves' diet was apparently less affluent, it seems to have been a nutritious one.

A planter-generated faunal assemblage was not located during excavation at Portici. The faunal material associated with the military occupation/field hospital was collected. This material illustrates military field hospital dietary

conditions during the earliest days of the American Civil War. The assemblage depicts the exploitation of the local environment to supplement an inadequate food supply. The faunal collection has also confirmed the records written during this occupation (see Ricketts 1861 and Gray 1861).

Figure 63 Faunal and floral assemblages associated with Portici's domestic slaves include chicken long bones (left), charred peach pits (center top), oyster and freshwater clam shells (right).

Figure 64 Faunal and floral assemblages associated with the occupants of the Structure I slave quarter include this pig scapula (right), chicken and rooster long bones, splintered long bone fragments of cattle and sheep, butcher-marked pig mandible (center bottom), peach pits (upper right), and oyster and freshwater clam shell fragments.

12 BUTTONS

Historically, buttons have been used to fasten and sometimes decorate particular types of garments. These garments seldom survive in the archeological record. However, the objects used to fasten the garments, such as hooks and eyes, grommets and lacings, buckles, pins, and buttons, have a far better rate of survival. Of these fasteners, buttons provide a great deal of information concerning the style and variety of clothing worn, the age and gender of the wearer, and may also suggest socio-economic status.

A Brief History

The word button evolved from the French "bouter,to push." This term became synonymous with the small objects pushed through loops or slits (buttonholes) which served as a catch between various parts of a garment. Prior to their use as garment fasteners, buttons were used as ornaments. They were often worn as decorative badges by the Egyptians, Greeks, and Romans. Pins and buckles were the most common forms of garment fasteners employed during these times.

Buttons remained purely decorative in Europe until the thirteenth century when more tailored clothing appeared. As garments became more form-fitting, buttons became a more prominent decorative and functional feature. Two basic shapes, a small ball, and a flat, round, disk were the most commonly used forms. Rows of tiny, close-set buttons were used to fasten and embellish the sleeves and bodices of both sexes. Buttons were eventually censured by the clergy in the thirteenth century for encouraging extravagance and vanity (Hughes and Lester 1981:5).

Over the ensuing centuries, sumptuary laws in England decreed the number, style, and materials of the buttons worn. These laws further specified which gender and social class wore them as well. The ultimate goal of establishing various sumptuary laws was to regulate business and finance. These Acts passed by Parliament were an attempt to create and encourage new industries which exhibited a potential for growth and for contributing to the national economy. A prime example were the acts issued by Parliament which forbade the wearing of cloth buttons. This law was in effect from the reign of William and Mary in 1689 until that of George I in 1727. The underlying purpose of this rule was to establish a market for the fledgling metal button industry after the Crown was petitioned by various guilds. Understandably, these laws were difficult to enforce, given the sheer volume of clothed individuals in the British Empire.

By the eighteenth century these sumptuary laws were eventually allowed to fade from existence (Ranum 1968). The demand for buttons had become so great in Europe that the button industry was very firmly established. Buttons were made of all conceivable materials, and in ever-increasing volumes. Originally, buttons were individually fashioned by hand, both at home, and by skilled artisans. Mechanical processes were gradually adopted which increased production and effectively reduced the price to the consumer.

Few buttons were manufactured in the United States until the nineteenth century. Metal buttons had been produced in America in small numbers during the late eighteenth century, particularly as a result of the Revolutionary War. The American button industry, however, made no substantial progress until the War of 1812. European imports were effectively cut-off during the hostilities. A small factory established in Connecticut to produce metal buttons began manufacturing horn and vegetable ivory buttons in 1812, as well. Connecticut gradually became the button-making capital of America.

Fashion has played a major role in the evolution of buttons. The styles of buttons have been greatly influenced by both the style of garments and the contemporary jewelry styles used to adorn them. In fact, until the seventeenth century, buttons very often were the jewelry worn to compliment attire (Hughes and Lester 1981:6).

In the eighteenth century practically all clothing worn by women was fastened with laces or hooks and eyes. It was men who wore the buttons during this century. Breeches, coats, waistcoats, shirts, great coats, banyans, and vests were all fastened with an incredible array of buttons. A gentleman's shirt-tails were generally so long that underwear was not part of his daily buttoned garb (Hinks 1988:6).

By the nineteenth century, buttons were still primarily fastening men's clothing. Buttons did not find their way back onto women's garments until the 1830s. They would have been rather ineffective on the tubular, Grecian gowns of the preceding three decades. These had been fastened with two drawstrings, one placed at the neck, often quite low, and the other just below the bosom. The appearance of a tight-fitting basque and a bell- shaped crinoline in 1830 returned buttons to women's garments as both a functional and a decorative accessory. By the 1860s, as the diameter of the crinolines expanded, so too did the application of buttons. Women's coats and gowns often flaunted anywhere from 60 to 120 buttons on a single garment (Blum 1985:31,43,71). Gentlemen and children too, were proportionately covered with buttons, from their underwear to their shoes (Roberts 1972:23).

The first buttoned boots and shoes appeared in 1860. The earliest pairs were made for men, but women and children were sporting them by the middle of that decade. From that time until 1917, laced shoes were reserved for utilitarian purposes and for the lower, working classes (Roberts 1972:24).

Buttons have been made from a wide variety of materials, from gold to insects. However only porcelain, bone, wood, glass, semi-precious stones, pearl, shell, brass, pewter, lead, tin, and iron, those types of materials recovered from Pohoke and Portici, will be discussed .

Porcelain

Porcelain, or "china buttons " were an expensive, luxury item well into the nineteenth century. These buttons were individually made by hand-molding wet clay. In 1840 a process was patented in England which used dry, china-clay (kaolin) powder in steel dies or molds. The molds were compressed to form the button shapes and then fired. These buttons were manufactured in monochrome white or pastel colors; some were decorated with printed designs imitating calico fabrics. China buttons were attached with pin-shanks, or by two, three, or four-holes (Figure 65; Hughes and Lester 1981:31).

Bone and Wood

Most bone and wood buttons served as either plain, utilitarian buttons, as central supporting disk for cloth-covered buttons, or as back-piece for stamped metal buttons. The manufacturing techniques for these buttons changed little throughout the eighteenth and nineteenth centuries (Hinks 1988:67-68). The general abundance of bone, coupled with the ease of acquiring it, made it a popular garment-fastening material for centuries. The shin bones of cattle provided the best button material. The method used to manufacture bone buttons was the same in both commercial and cottage industries. The bones were first cleaned and then boiled. The softened bone was sawn open, pressed flat, and the spongy interior was scraped away. Button blanks were then cut from the remaining bone slab (Hughes and Lester 1981:8).

Commercially produced bone blanks of the eighteenth and nineteenth centuries were usually cut in a lathe. This produced a simple, ring-turned design on the buttons. The disks were then fitted with a pin shank, used as a supporting mold and covered with fabric, needlework, or a thin metal cap, or drilled with holes. Throughout the eighteenth century, lathe-turned buttons typically had either three or five holes. Two or four of these holes were spaced evenly, the odd hole in the center was created by the prick used to hold the disk in the lathe (Hughes and Lester 1981:8).

In 1790, a machine was invented in England which simultaneously drilled four holes in bone or wood disks. These holes were evenly spaced and, because they were drilled as the button was lathed, the fifth, center hole was eliminated. This machine took some time establishing itself in the button industry and so, three and five-hole buttons remained common well into the nineteenth century (Hinks 1988:67-68). The two- and four-hole wood and bone buttons of this period were usually hand-drilled. These holes, therefore, are usually spaced unevenly (Hughes and Lester 1981:8).

Wood buttons were produced on a lathe in a manner similar to the bone disks. Buttons of wood were polished, and often varnished, after they were turned. Hard, close-grained woods such as apple, walnut, cherry, yew, box, and maple were the materials preferred for turned buttons. Ebony and rosewood were used for the better, more costly buttons. The wood disks were used as supports for embroidery, fabric, or thin stamped metal. They were also set with pin shanks and drilled with two, three, four, or five holes. These sew-through buttons were used primarily for utilitarian purposes (Hughes and Lester 1981:251; Peacock 1972:108-109).

Glass

Glass has been used for buttons from as early as the fifteenth century, though their popularity did not reach its zenith until the Victorian era. Glass-working techniques remained virtually unchanged for centuries, consequently, dating glass buttons is extremely difficult. The mountings or shanks on these buttons are often the only means of ascribing a possible manufacturing date to them.

Opaque and translucent two, three, and four-hole, sew-through buttons were used primarily for utilitarian purposes. The buttons were produced in two-piece molds or steel dies throughout the nineteenth century. These buttons were generally manufactured of semi-transluscent white glass known as "clambroth" or "camphor" glass. Opaque white glass called "milk glass" was also used (Hughes and Lester 1981:107).

"Fancy" glass buttons were manufactured primarily in Bohemia, Germany, France, and Austria (Hughes and Lester 1981:95). These buttons were most often individually hand-molded and then cut, faceted, or otherwise embellished. These buttons were also called "charm string glass." From the 1840s through the 1880s Victorian girls industriously collected 999 different buttons to fashion a "charm string." The first button for the "charm string" was called the "touch button" while the thousandth, and last, button was to be added by "Prince Charming" when he

came to collect his bride. Collecting this thousandth button was to be avoided at all costs for it would doom the girl to spinsterhood (Hughes and Lester 1981; Roberts 1972).

Semi-precious Stones

Wearing buttons made of precious and semi-precious stones was so common in the eighteenth century that highway men took to carrying razors with which to "bubble" (slash off the buttons) their hapless victims (Roberts 1972:18). This lavish use of gems for buttons amongst the European nobility encouraged the development of glass imitations. These "paste" gems were an item which the common folk and colonists were able and eager to indulge in.

Buttons made from semi-precious and other hard stones and minerals were quite popular throughout the eighteenth and nineteenth centuries. The stones were cut with a lapidary slicer and then polished. A copper drill was used to perforate the stone and attach the shank. Stone buttons were either polished flat disks, ball-shaped, or dome-shaped with a pin-head shank. Pieces of semi-precious stone were also used as the center of two-piece metal buttons (Peacock 1972:105). These stone buttons were made for men's waistcoats or used as sleeve-buttons. Women did not wear these buttons on blouses until the late nineteenth and early twentieth centuries (Hinks 1988:106).

By the 1850s, stone button blanks of all types were imported from Bohemia to be shanked and polished in England. Pin-head shanks were still used, but another common method was to partially drill the blank and insert a shank with a back plate. Ball and dome-shaped buttons were popular for waistcoats. Ladies also employed these buttons on blouses (Peacock 1972:106).

Pearl and Shell

Pearl buttons are made from the nacreous, or pearly, lining of marine and fresh water mollusks. Marine mollusks with colored or iridescent shell linings are found primarily in the warm waters of Australia, China, India, Japan, the East Indies and the Mediterranean. The waters of Europe and America are just too cold to produce these beautiful shells. The shells of the pearl oyster, which includes several species of the genus Meleagrina or Pinctada, were the most extensively used in the button industry (Hughes and Lester 1981:230).

Pearl button-making required a great deal of hand-labor, just as in the manufacture of glass buttons. The shells had to be handled individually, even when the manufacturers began using power-driven lathes. Each blank was cut

individually with as little waste as possible. Even the simplest of designs found on shirt and underwear button had to be cut by a worker moving each individual button beneath the cutting wheel (Hughes and Lester 1981:232).

Most pearl buttons are rather plain, being simply cut and polished to show the natural beauty of the shell. The majority are attached by split-shanks or sewn-through drilled holes. A wide variety of techniques were employed to create and embellish pearl buttons; only the simplest variety were recovered from Pohoke and Portici.

Shell buttons describe those buttons which are made from non-nacreous shells. Freshwater mollusks generally lack the iridescence and satin-like finish of the ocean pearl shells. A similar manufacturing process was used for these non-nacreous shell buttons. Ocean pearl was the material favored for better quality or "fancy" buttons. Non-nacreous shell was used primarily for utilitarian shirt, underwear, and baby clothes in the nineteenth century (Hughes and Lester 1981:231; Hinks 1988:70) .

Brass

Brass buttons dominate the category of metal buttons. Brass itself is an alloy of copper and zinc, in which the latter does not constitute more than 40% of the mixture. If the percentage of zinc exceeds 40% and includes arsenic, the alloy is called tombac. Following the establishment of brass foundries in England during the first quarter of the eighteenth century, brass became a very popular, inexpensive material for manufacturing buttons (Hinks 1988:57-58)

The early brass buttons were either cast, or stamped from thin sheets of brass and mounted on a bone or wood disk. The cast buttons were made in one piece with the shank attached. By the second half of the eighteenth century, loops of wire were inserted into a cone of metal molded to the button back. This method of attachment was called a cone shank.

In the late 1790s the demand for brass buttons was met by mass-production. Brass ingots were rolled between steel rollers and thousands of button blanks were stamped from the thin sheets. Preformed wire shanks were soldered onto the blanks. Trays of buttons were then placed into ovens to melt the solder. This type of production generated a new style of shank called the "omega." With its greater surface soldering area, it replaced the outdated "alpha" shank in 1800.

During the early nineteenth century, buttons became much smaller in response to current fashions. These buttons generally measure 20 millimeters in

diameter. The brass buttons of the preceding century typically measure 36 millimeters in diameter. The quality of these mass-produced buttons remained high, and this, coupled with the sheer volume produced, seriously threatened the fledgling American metal button-making industry. In fact, the American button-making industry did not develop sufficiently until the 1830s to adequately compete with imported brass buttons.

Designs were generally engraved, chased, or die-stamped on both one and two-piece brass buttons. The vast majority of these buttons were gilt. From about 1800 through 1830 the brass buttons were plain (non-gilt). The color and the quality of the gilding on these buttons was their principal feature. Delicate, elaborate floral patterns began to appear on brass coat buttons after 1830.

By the early nineteenth century, some brass buttons were lacquered rather than gilt. The practise of lacquering was widespread within the button industry by 1820. Cheaper buttons were scratch-brushed with a brass wire brush before lacquering. The lacquer was usually colored to heighten the orange tint of the metal itself. Two or three coats of lacquer were generally applied to each button with a camel's hair brush after the button had been slightly warmed (Hughes and Lester 1981:216).

Two-piece brass buttons appeared in England after 1815 and were well established by the 1820s. This button type consists of two stamped metal shells, front and back, folded tightly together at their rims. This variety of button was called a "shell" in the nineteenth century, and is still referred to as such by Britains today. Americans refer to this button as the "Sanders-type," after the inventor, Benjamin Sanders. Production of these buttons in the United States peaked from 1830 through 1850. These buttons were decorated with stamped and chased designs and were usually gilt (Hughes and Lester 1981:217).

Pewter

Pewter is a rather generic term for a group of tin alloys which vary considerably in composition. The physical properties of pewter vary slightly depending on this composition. The basic ingredients for this metal alloy are tin with varying proportions of lead, antimony, and copper. Pewter is a soft metal which takes on a soft sheen when polished.

Throughout the eighteenth and early nineteenth centuries pewter buttons were cast using small brass, bronze, or wood molds which produced from one to one dozen buttons per casting. Those manufactured during the eighteenth century were cast in one piece with tk attached to the button body. Because pewter is

so soft, these shanks often broke off. An improvement was developed by reinforcing the shank with a brass or iron wire loop.

Pewter has a relatively low melting point making it easy to cast. It was a popular choice for small-scale commercial, or cottage button-makers. Worn-out pewter household utensils could easily be melted down and recast as spoons or buttons, by those with the proper molds, as the need presented itself (Hughes and Lester 1981:204).

Buttons cast in the nineteenth century were made from pewter with a higher tin content making them somewhat harder than those made during the eighteenth century. This increased hardness did little to change the association of pewter buttons with cheap closures used by the lower classes. In an effort to change public opinion American button manufacturers began calling this better grade of pewter "hard white." These buttons filled a gap in the American button industry until it was able to mass-produce good quality gilt brass buttons that was competitive with British imports in the 1830s. Once this mass-production was in effect, pewter buttons became virtually obsolete (Hughes and Lester 1981:205).

Tin and Iron

Tin is a soft, silver-colored metal which is non-toxic and does not easily tarnish. These qualities promoted its widespread use alone and as a coating for other metals such as iron, copper, and lead. Commercial tin was cast into blocks or "pigs." Block tin was cast into military and four-hole utilitarian buttons.

Tin-plated sheet iron was used extensively in button-making from the late eighteenth century on. This "tin-plate" was principally used to produce sew-through button backs. The normal wear on these buttons eventually rubbed the tinned surface off. Generally only the steel or iron portion of these buttons remain in the archeological record (Hughes and Lester 1981:229).

Lead

Lead is a soft, dark grey metal which was seldom used unalloyed for buttons. Occasionally, cast four-hole utilitarian buttons for breeches or pants were manufactured in the eighteenth and early nineteenth centuries (Hughes and Lester 1981:223).

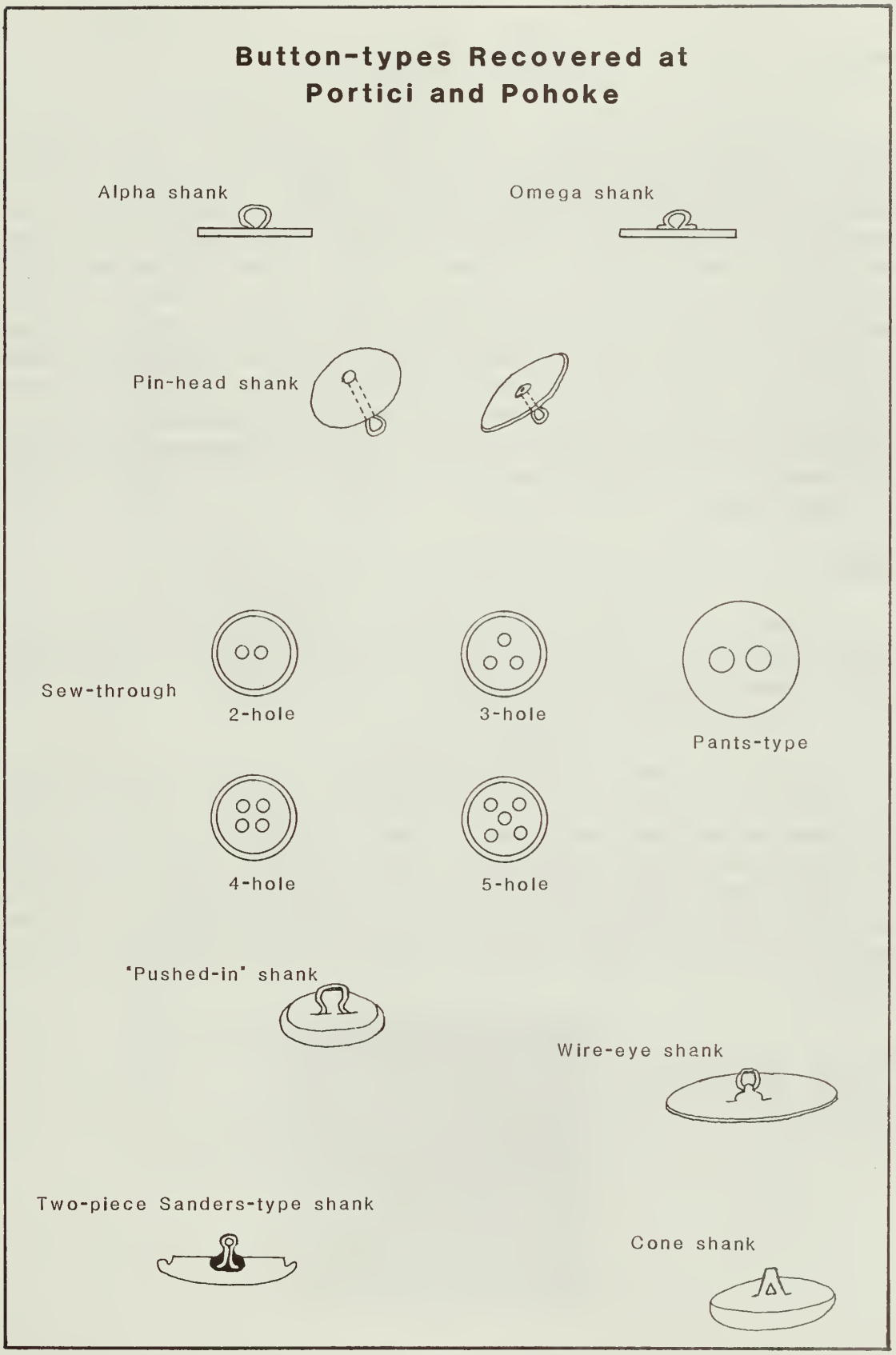


Figure 65

J. Hernigle
K. Parker

Analysis

The buttons recovered from sites 44PW335 and 44PW348 were sorted by material, method of attachment, and function (Figure 65). The functional category is primarily determined by the types of garments to which the various buttons were attached. The functional category consists of utilitarian buttons and decorative, or "fancy" buttons. Utilitarian buttons include those used to fasten underwear, trousers, overhauls, overcoats, and shirts. These buttons are typically two, three, and four-hole bone, wood, porcelain, glass, pewter, or iron. Decorative buttons were attached to waistcoats, dress shirts or blouses, vests, and coats. These fancy buttons are primarily shell or "pearl," cut glass, semi-precious stones, and gilt brass. Specific buttons have been traditionally used for specific styles of clothing, however, when the buttons are recovered archeologically, there are no guarantees concerning this association. Men's waistcoat buttons might have been used to decorate a ladies dress, used as a gaming piece (Hinks 1988:5), or added to a charm string.

Pohoke

A total of 114 were recovered from the archeological excavations at site 44PW335 (Table 12.1). Of this figure, 97 buttons are associated with Structure 1, the nineteenth-century slave quarters. The remaining 17 buttons were recovered from Structure 2, the refuse pit.

Five of the buttons recovered from Structure 1 are brass military buttons. Four of these are Federal coat and vest buttons which are probably associated with either the First Battle of Manassas or subsequent Union traffic in the area. The fifth military fastener is a Mississippi militia coat button. Antebellum military coat buttons often appear in slave quarter assemblages (Otto 1984:72). While this particular button may have been affiliated with local American Civil War activities, it may have been attached to a surplus military coat given to the slaves (Figure 66).

Figure 66 Mississippi militia coat button recovered at the Structure 1 slave quarters. Scale:one inch.

TABLE 12.1

POHOKE : BUTTONS
STRUCTURE 1: SLAVE QUARTERS
(UNITS 2, 3, 4, 6, 119)

MATERIAL	1 HOLE	2 HOLE	3 HOLE	4 HOLE	5 HOLE	SHANK	FRAG.	TOTAL
PORCELAIN	0	0	0	28	0	0	0	28
GLASS	0	0	0	11	0	2	2	15
IRON	0	0	0	4	0	0	0	4
LEAD	0	0	0	0	0	1	0	1
BRASS	0	0	0	0	0	*11	0	11
PEWTER	1	0	0	1	0	0	0	2
TIN	0	0	0	1	0	0	0	1
UNIDENT. METAL	0	1	0	1	0	2	0	4
GEM/STONE	1	0	0	0	0	1	0	2
BONE	2	0	0	18	2	0	0	22
SHELL	0	0	1	5	0	1	0	7
TOTAL BUTTONS	4	1	1	69	2	18	2	97

*5 MILITARY BUTTONS

POHOKE : BUTTONS
STRUCTURE 2: REFUSE FILL
(UNIT 137)

MATERIAL	1 HOLE	2 HOLE	3 HOLE	4 HOLE	5 HOLE	SHANK	FRAG.	TOTAL
PORCELAIN	0	0	0	3	0	0	0	3
GLASS	0	0	0	1	0	0	0	1
IRON	0	0	0	2	0	0	0	2
BRASS	0	0	0	0	0	6	0	6
UNIDENT. METAL	0	0	0	0	0	0	3	3
BONE	1	0	0	0	0	0	0	1
WOOD	1	0	0	0	0	0	0	1
TOTAL BUTTONS	2	0	0	6	0	6	3	17

H. Bonnette

M. Richardson

Sixty-six percent of the 92 civilian buttons are utilitarian in nature. Most of these buttons fastened work clothes such as shirts, trousers, underwear, and overhauls. Fasteners from Sunday finery, or from mending planter garments, represent the remaining 34% of the button assemblage from Structure 1. Small shell buttons from fancy shirts or infants clothing, semi-precious stone and cut glass vest buttons, and brass coat and vest buttons form this collection. Many of these fancy buttons are typically associated with eighteenth-century garments. This may indicate that outmoded garments were transferred to the slaves and refashioned for their own needs.

The civilian buttons associated with Structure 1 were recovered from the interior of the structure near the chimney footing (Figure 67). Elements of a sewing kit including one-half of a bone needle case, straight pins, scissors, and thimble fragments, were also recovered from the hearth area. These items suggest an African-American seamstress stitched beside the hearth in Structure 1.

Figure 67 This sampling of buttons associated with Structure 1 includes amber and jadeite waistcoat fasteners (top row); porcelain and glass shirt buttons (second and third rows); shell, bone, and wood underwear, trouser, and shirt fasteners (fourth row); iron and brittania metal trouser buttons, and gilt brass coat buttons (bottom row).

Kelso and Sanford (1983:26) have suggested the presence of buttons in slave quarters may be associated with quilt making. They postulates the buttons were intentionally removed and discarded from garment fabrics used to piece the quilts. Buttons, like textiles, were a valuable commodity throughout the eighteenth and nineteenth centuries. Seldom was either intentionally disposed of since repair and reuse were far less expensive and less time-consuming than making anew. Garments were generally mended and refashioned over and over again until they were too badly worn to continue in this manner. The worn remnants were then cut-down and made into garments for the smallest, and often youngest, family members. When these garments had been worn through, they were finally cut up and pieced together into bed quilts (Swann 1977:19).

For centuries, and even into the present, buttons were and are generally cut from unsalvageable garments and saved. Salvaged buttons are often used on new or refashioned garments and to replace missing fasteners they closely match. It does not seem logical that a resourceful group of people with limited means would purposefully discard useable buttons. In the event these buttons were intentionally discarded from garments a high percentage of matching buttons would be anticipated in the archeological record. Less than 30% of the buttons recovered from Structure 1 match. These buttons may represent additional, unused fasteners which were reserved for later use and inadvertently overlooked, spilled, or lost over the approximate 40-year occupation of Structure 1. The variety of the single buttons present might have once been part of a charm string passed along to a female slave by one of the planter's daughters. The assortment of buttons may also have been used as gaming pieces in conjunction with the geometrically-shaped, water-worn ceramic gaming pieces and the single, carved bone gaming piece recovered from the confines of Structure 1.

The buttons recovered from the Structure 2 refuse fill include 11 bone, wood, metal, porcelain, and glass utilitarian buttons (Table 12.1). Six brass coat and vest buttons complete the assemblage. The low number of unmatched buttons recovered from this fill suggest they were probably lost and inadvertently contributed to the trash generated at Structure 1. The buttons may have fallen from the garments of individuals placing trash in the abandoned cellar hole. The buttons may also have dropped from garments onto the ground during the course of daily activities and been swept into the refuse area during runoff from heavy rains.

Portici

Thirty-three buttons were recovered from the archeological excavations conducted at site 44PW348 (Table 12.2). Four of these buttons are associated with the domestic slaves residing in the cellar quarters. The remaining 29 buttons are affiliated with the planter/military occupation of the main house.

Three of the four buttons retrieved from the cellar slave quarters are utilitarian, sew-through fasteners. One "fancy" shell button, probably from a dress shirt, completes the assemblage. This small number of unmatched buttons suggests they dropped unnoticed from garments during the coarse of normal activities. The buttons might have also been dropped or overlooked while mending garments or replacing lost fasteners.

Military personnel serving and convalescing at Portici following its metamorphosis to an ill-equiped Confederate field hospital following the First Battle of Manassas in 1861 "...found one bureau left behind by the family which they [the Confederate and captured Federal doctors] broke open and gutted of everything textile from window curtains to diapers..." (Gray 1861:20). The recovery of 27 utilitarian buttons and two Federal military buttons from the planter/military occupation strata appears to reinforce the thoroughness with which the Lewises evacuated their personal effects from the premises, excluding the vandalized bureau. It would seem the only clothing in the mansion house following the family's evacuation was military garb. These 29 buttons probably fastened the garments of the Confederate and Federal soldiers who convalesced and bivouacked at the house following the First Battle of Manassas.

Summary

The button assemblage recovered from the nineteenth-century slave quarters at Pohoke is dominated by utilitarian fasteners. This is expected from a context where work clothes would dominate the occupants' wardrobes. Atypically, a large number of fancy buttons were also present within the confines of Structure 1 (Otto 1984:72). The presence of these decorative glass and stone buttons, many of which are generally associated with eighteenth century garments, may reflect more frequent distribution of outgrown or outmoded planter fashions to these slaves. The recovery of the elements of a sewing kit and 97 buttons in a small area before the hearth in Structure 1 intimates an African-American seamstress worked her needles in Structure 1. Whether mending planters garments or refashioning or creating clothing for her own family, she apparently had more access to a greater assortment of buttons then most of her peers (Otto 1984:72). There were also more opportunities to drop or lose the buttons.

TABLE 12.2

PORTICI : BUTTONS
SLAVE OCCUPATION

MATERIAL	1 HOLE	2 HOLE	3 HOLE	4 HOLE	5 HOLE	SHANK	FRAG.	TOTAL
PORCELAIN	0	0	0	1	0	0	0	1
GLASS	0	0	0	1	0	0	0	1
BONE	0	0	0	0	1	0	0	1
SHELL	0	0	0	1	0	0	0	1
TOTAL BUTTONS	0	0	0	3	1	0	0	4

PORTICI : BUTTONS
LEWIS/MILITARY OCCUPATION

MATERIAL	1 HOLE	2 HOLE	3 HOLE	4 HOLE	5 HOLE	SHANK	FRAG.	TOTAL
PORCELAIN	0	0	0	9	0	0	0	9
GLASS	0	0	0	7	0	0	0	7
IRON	0	0	0	0	0	2	1	3
BRASS	0	1	0	0	0	*4	0	5
BONE	0	0	0	4	1	0	0	5
TOTAL BUTTONS	0	1	0	20	1	6	1	29

*2 MILITARY BUTTONS

H. Bonnette

M. Richardson

The unmatched nature of these fancy buttons suggests they were not purposefully removed and discarded during fabric recycling for garments or quilts. The mismatched nature may result from using extra buttons as gaming pieces to supplement ceramic and bone pieces recovered in the same area. The individual, decorative button may also have been attached to a charm string belonging to one of the planters' daughters. The discarded or donated string might have been used for other purposes by the residents of Structure 1.

The overall density of buttons retrieved from the area near the hearth in Structure 1 might also suggest the occupants left their clothing, or some portion of their clothing, when they evacuated the plantation on the eve of the First Battle of Manassas.

The 17 unmatched utilitarian buttons retrieved from the Structure 2 refuse pit suggest they were contributed to the archeological record through normal daily pursuits. These fasteners were probably inadvertently dropped into the cellar hole while depositing trash, or fell from the garments elsewhere and were swept down slope into the refuse pit during rain and siltation episodes.

Four mismatched buttons recovered from the cellar slave quarters in Portici's main house suggest they too were deposited for posterity during the course of daily activities. This low number of fasteners suggests the domestic slaves occupying this area removed their possessions or stored them elsewhere when the family evacuated the structure July 19, 1861.

The absence of buttons associated with the planter occupation of the mansion house is testimony to the thoroughness with which the structure was evacuated. Documentation by the military tenants in 1861 only notes the presence of household textiles in the structure. The utilitarian and Federal military buttons recovered presumably fastened the clothing of the Confederate and Union soldiers who convalesced, served, or bivouacked in this make-shift field hospital during the period following the First Battle of Manassas.

13 PERSONAL POSSESSIONS

Despite the legal, racial, and symbolic differences existing between residents of the eighteenth and nineteenth centuries, people often experienced basically similar material existences. All the trappings associated with diet and day-to-day existence provide basic information and allow detailed comparisons between the various social and economic groups. Items which were chosen or manufactured to suit personal interests or amusements provide a special variety of insight into the nature of the individuals who occupied the sites.

Numerous artifacts of a personal nature were recovered at sites Pohoke and Portici. Sixty-one personal objects were recovered at Pohoke while Portici yielded 42 such items. The personal possessions discussed in this chapter include articles associated with entertainment, writing, sewing, adornment, currency, pen knives, and vision.

Entertainment

Objects employed in recreational pursuits are often recovered archeologically. The items included in this category are gaming pieces or markers, marbles, Jew's harps, and dolls.

Gaming Pieces

Gaming pieces recovered in Piedmont Virginia and Jamaica are typically small, geometrical-shaped, water-worn ceramics. The ceramic gaming pieces are of porcelain and unidentifiable white-pasted wares. Originally, whole ceramic vessels were packed in crates and barrels and often broke while in the watery-holds of ships. Ceramics broken during transit, or wasters from ceramic factories were often used as ballast in these ships. Repeated voyages may have smoothed the fragments until they were ultimately disposed of, perhaps at various seaport docks.

Water-worn ceramic gaming pieces have been recovered at other nineteenth century slave sites, including Thomas Jefferson's Poplar Forest, in Bedford County, Virginia (Michael Strutt 1990: personal communication), Monticello, Albemarle County, Virginia (Barbara Heath 1989: personal communication), and Drax Hall, Jamaica (Douglas Armstrong 1989: personal communication). They have also been retrieved from slave contexts at other plantation sites at Manassas National Battlefield Park, including Spring Hill and Meadowville. Two water-worn ceramic

gaming pieces were also recovered from the Robinson House site within the Battlefield Park. Robinson was a free black, and his wife, an immigrant servant from England. These types of gaming pieces are still used as markers in various Caribbean games today (Douglas Armstrong 1989:personal communication). Their precise association with nineteenth-century African-American culture, both free and enslaved, remains an enigma.

In addition to ceramic markers, bone gaming pieces were also popular. These markers were often used to identify specific players and denote the occupation of game spaces, much in the way ceramic gaming pieces were used.

Eight gaming pieces were found at Pohoke. Three markers are associated with Structure 1, the slave quarters. These include two water-worn, unidentifiable white-paste ceramic and one notched, polished, rectangular bone fragment. The water-worn pieces are geometric shapes, while the inch-long bone marker is carved with three diagonal lines (Figure 68). Five ceramic gaming pieces were retrieved from Structure 2, the refuse pit. Four of these five water-worn gaming pieces are unidentifiable white pasted wares. The fifth gaming piece is a water-worn porcelain.

Figure 68 Water-worn ceramic gaming pieces and notched bone marker or gaming piece found at Structure 1. Scale: one inch.

Portici contained three water-worn porcelain gaming pieces. One marker was recovered from the cellar slave quarters of the mansion house. The other two gaming pieces are associated with the planter/military occupation. Perhaps the planter children or military occupants also played games of chance.

Marbles

The second type of recreational item recovered from the excavations are marbles. Small, spherical balls of buff, gray or multicolored "agate" clay were used in games of the Colonial period (Noel Hume 1969:320). Glass, stone, and porcelain spheres were used in various nineteenth-century games collectively termed "marbles." These marble games included "nine holes," "hit and span," and "ring taw" (Walker 1971:184). These games required a ring drawn in the dirt into which equal quantities of each players' marbles were tossed. Players attempted to knock each others marbles outside the ring with a marble shot from between the thumb and forefinger. During the nineteenth century, "marbles" were played primarily by young men rather than children (Walker 1971:184). Two marbles were recovered from the nineteenth century slave quarters at Pohoke. These marbles are of buff-colored, hand-formed, low-fired clay.

Jew' Harps

The third object included in the entertainment category is the small, simple musical instrument called a Jew's harp. The lyre-shaped frame and thin metal tongue of these instruments are typically made of either cast brass or wrought iron. The metal tongue was plucked with the musicians hand while the frame was held in the teeth to produce a range of metallic sounds. Jew's harps were a popular way of passing the time from the seventeenth century through the nineteenth century. The analysis of Jew's harps recovered at Fort Michilimackinac suggests that brass harps may be the earlier of the two materials (Stone 1974:145).

Two iron Jew's harp frames were recovered from Structure 1, the slave quarters at Pohoke (Figure 69). The instrument may have amused children and adults after the day's work ended. Another iron Jew's harp frame was found associated with the planter/military occupation of Portici's mansion house. It may have belonged to a Civil War era soldier sheltered within the abandoned structure following the First Battle of Manassas. Confederate and Union soldiers often carried Jew's harps in their kits to pass the time. The planter children may have also enjoyed a harp.

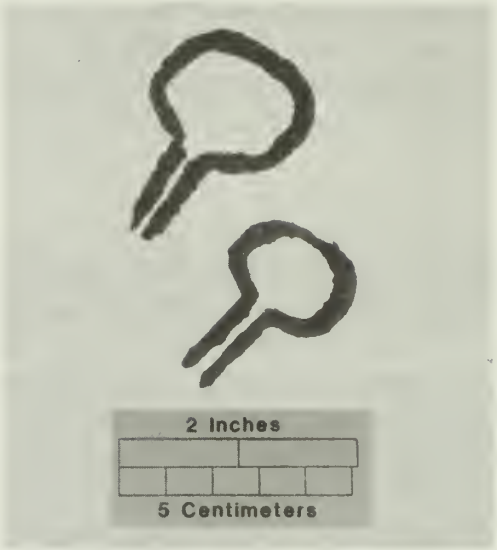


Figure 69 Iron Jew's harp frames.

Dolls

The final artifacts included in the entertainment category are dolls. Dolls of wood, bone, straw, fabric, and baked clay have been created for children for thousands of years. Organic dolls are poorly preserved in the archeological record. Ceramic dolls made in two-hinged molds became popular in the seventeenth century (Noel Hume 1969:315). Delftware dolls with hinged-arms and legs were made during the eighteenth century. Papier mache dolls with wax-coated faces, Parian-ware, and bisque dolls were popular in the nineteenth century. High quality porcelain and less expensive "china" dolls were rare before the 1860s (Noel Hume 1969:315).

Dolls, known as "fashion babies," were manufactured in a variety of sizes and styles throughout the eighteenth and early nineteenth centuries primarily in Europe and major American cities. They were dressed in the latest in fashions and brought inspiration and instructions to fashion-conscious women across America. Current clothing styles were illustrated by the dolls' attire in miniature.

Women purchased these dolls and used the clothing to produce a pattern for themselves. The hair styles and clothing reflected fashion trends thereby providing an approximate date range for the dolls (Swann 1977:23). Fashion babies were eventually replaced by published clothing patterns in women's magazines in the nineteenth century.

At Pohoke, a single porcelain doll is represented by a head and one torso fragment. Her face is hand-painted in overglaze colors, with finely detailed features including eyebrows, eyes lined in dark brown, red lips, and rouged cheeks. The doll's hair is painted black in an upswept fashion popular during the late 1850s and 1860s (Blum 1985). The size, quality, and appearance suggest that this doll is a fashion baby. The doll is no taller than three inches. It is impossible to determine if the arms and legs were hinged and free-moving, or if the doll body was a single molded piece.

The doll, along with sewing equipment recovered at Structure 1, suggests the presence of a seamstress, probably a female slave employing her talents for the mistress of the plantation and for herself and her family. Female slaves, particularly seamstresses, were often aware of the latest fashions and often aspired to include these styles in the "Sunday best" (Otto 1984:72). Once the role of fashion baby was completed, the doll may well have found its way into the hands of a child who resided at Structure 1.

Writing Implements

Writing slate fragments, and slate, lead, and graphite pencils are included within the category of writing implements. Writing slates and slate pencils have been used for scrivening and ciphering since at least the early eighteenth century (South 1963). Geologic formations of slate were quarried in large sheets and cut into smaller sections for writing tablets. Slate, lead, and graphite pencils were fashioned by grinding down smaller pieces of the materials into manageable sizes. Typically, slate pencils and slate tablets were used in schools, where handwriting and arithmetic could be written and erased without wasting expensive paper. Lead and graphite pencils have been used primarily by carpenters since at least the eighteenth century to mark pieces of wood during construction projects (Smith 1976:188).

Twenty-two fragments of writing-related objects were recovered at Pohoke. The slave quarters (Structure 1) yielded two fragments of slate writing tablets and one pencil lead. The refuse-pit (Structure 2) contained six slate pencil fragments and 13 slate writing tablet fragments. One of these slate tablet fragments

exhibited the etched lines from a "tic-tac-toe-like" game. These writing implements may be associated with Henry Grimes, the skilled slave who was Portici's carpenter. The slave quarters is thought to have been his residence. The slate tablets and pencils may also have been used in the Davis "Academy" where the young Ball children were taught. The discarded fragments may have been retrieved and used by the sites' nineteenth-century occupants.

The domestic slave quarters at Portici contained only one slate pencil. One slate pencil was also recovered from the planter/military occupation of site 44PW348. There were no fragments of writing slate associated with either context at Portici.

The presence of slate and lead pencils, along with writing slates in slave associated contexts suggests that some of the plantation's slaves were literate or at least played tic-tac-toe on the slates.

Sewing

> ...A woman who does not know how to sew is as deficient in her education as a man who cannot write. Let her condition in life be what it may, she cannot be ignorant of the use of her needle...(Farrar 1837:122).

Throughout the eighteenth and nineteenth centuries almost no women, even those of the upper social strata, could escape the basic requirements of their gender. These requirements included marrying, bearing and raising children, and tending to a plethora of household chores, of which sewing was only one. The basic role of the common housewife was the basic role of all women, free and enslaved (Swann 1977:12).

Needlework took two forms, plain and fancy. Plain sewing included the essential household needlework such as the cutting and stitching of ordinary clothes, underwear, sheets, towels, and bed coverings. Most of this work required only simple stitches. Knitting and household linens are also in this category. All women had to do plain sewing, or make the provisions to have it done.

Wealthier girls and women also needed to learn how to sew because they had to deal with even more clothing, bed linens, table linens, curtains, and towels than the common housewife. They could delegate much of this work to servants or slaves. In which case they needed enough knowledge to direct and supervise the workers, or to teach them. Without a firm understanding of plain needlework,

they could not begin to learn fancy work (Swann 1977:18). Without sewing kits including straight pins, needle, needle cases, thimbles, scissors, and assorted threads, they could do neither.

During the eighteenth century, the best grade of straight pins were made from brass wire. The brass wire was drawn through a machine which gauged the thickness of the pin wire. A cutter would then snip the wire into pin lengths, sometimes achieving the rate of 70 pins per minute. Pin points were ground on one end while a head was applied to the other. Heading wire was wound twice around one end of the pin and flattened by annealing and hammering on a mini-anvil.

This method of heading pins continued until 1824 when solid head pins were stamped out in one manufacturing process (Noel Hume 1969:254). The pins could then be tin-washed by packing in layers of tinfoil and boiling in a diluted solution of salts of tartrate. The finished products were then washed, dried, and polished. Assorted sizes of straight pins were then shipped and sold in quart jugs (Diderot 1772:184-186).

Needles were made by a process similar to that used for pins. Needles of iron, steel, brass, or bone varied greatly in size depending on the coarseness of the sewing. Netting, upholstering, and tent making for example, required larger needles than embroidery or other "fancy" work would. Nevertheless, most needles and pins were small enough to lose easily. Then, as now, sharp needles and pins were nothing to misplace. Small cylindrical cases of wood, bone, ivory, or brass were designed and manufactured to carry needles and pins (Noel Hume 1969:255). Larger cases, known as "housewives," were equipped with all the sewing implements required to hastily mend garments and reattach buttons.

Thimbles were necessary when sewing to push pins and needles through thick cloth, without puncturing the sewer's finger. Thimbles were fashioned in brass, iron, and later, aluminum. The thimbles were available in a variety of sizes, with different types of texturing on the exterior. The texturing enabled the sewer to grip the cloth more easily. Thimbles of the sixteenth and seventeenth century were usually squat and heavy, made from a single piece of metal. By the mid-seventeenth century, thimbles were made in two pieces with the sides and the crown fastened by brazing. These thimbles were taller than those created in the seventeenth century, with indentations on the sides and a spiral decoration on the crown (Noel Hume 1969:255).

Eighteenth- and nineteenth-century thimbles were pattern stamped. Straight line decoration was applied over the entire thimble, giving the crown a cross-hatched appearance. However, the earlier crown spiral decoration is sometimes found on nineteenth century thimbles. Nevertheless, the basic thimble design has remained unchanged into the present century (Noel Hume 1969:256).

Scissors became common items in sixteenth-century England. Typically made of iron or brass, these early scissors were short shafted, with eyes set symmetrically to the handle axis. The blades were narrow and pointed, with a slight spread at the midsection. Seventeenth-century scissors had hafts drawn out into narrow "rat tails," which were looped outward and back to form handles. These loops were not attached to the scissors. The two blades were ground to hold a cutting edge and riveted together. Eighteenth-century scissors had developed broader blades, with the ends cut at oblique angles. By the nineteenth century, scissors had again become narrow-bladed with sharp points (Noel Hume 1969:267-268).

Nine sewing items were recovered at Pohoke. The slave quarters contained the majority of sewing artifacts, including two, tin-washed brass straight pins, one half of a lath-turned bone needle case, one tin-washed brass thimble, and one half of one pair of iron scissors (Figure 70). The refuse pit contained four, tin-washed brass straight pin fragments.

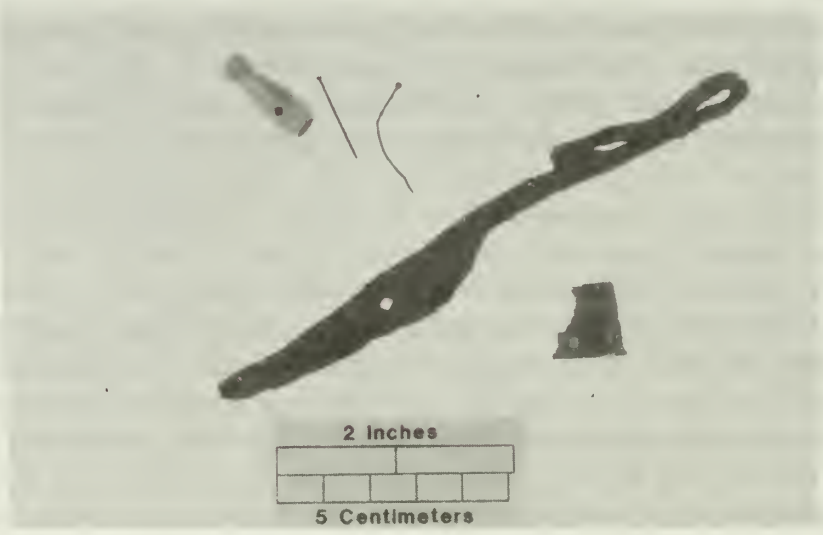


Figure 70 Elements from a nineteenth-century sewing kit found at Structure 1 include this bone needle case (left), straight pins, scissors (center), and stamped tin thimble.

Nineteen sewing-related artifacts were recovered at Portici. The cellar slave quarters contained nine, tin-washed brass straight pin fragments. The planter/military occupation yielded a larger number of sewing implements, including eight, tin-washed brass straight pins, one tin-washed brass thimble fragment, and one iron scissor handle fragment.

The recovery of these artifacts is to be expected at Pohoke and Portici. Garments needed to be created after fabric was purchased or made on the plantation; they were seldom bought ready-made. Clothing and household linens also required continual repair and mending. Such tasks were essential for both slave and planter on the Piedmont frontier, and elsewhere. Needlework served a useful purpose and so was an approved pastime for nineteenth-century females. There were two daughters in the Lewis family who undoubtedly plied their needles along with their mother and many of the female slaves.

Adornment

The category of adornment includes jewelry and beads. Jewelry and the distinctions and powers it is capable of imparting to its owner or wearer, has attracted men and women for centuries. Bright, colorful, or unique objects have long been prized for their beauty and for their capacity to set the wearer apart from all others. Many cultures believed that articles of jewelry often had a life of their own, bestowing powers on the wearer while sharing their virtues or evils accordingly. Adornments have been, and indeed, still are, used to identify rank, wealth, social status, age, and sentiment in addition to pleasuring the wearer. The collection of jewelry recovered from Pohoke and Portici contains two of the most ancient forms of jewelry, beads and rings. One paste gem, one carved horn jewelry fragment, and one brass mount complete the assemblage of adornments.

Glass beads were created to adorn, to decorate, and to perform in a monetary capacity. They were sewn onto clothing, strung as necklaces, or woven into the hair. Colorful and conspicuous, glass beads were popular supplements to the shell, bone, and wooden beads worn by Native Americans and Africans. During the seventeenth and early eighteenth centuries, glass beads were also worn by Europeans (Stephen Potter 1990: personal communication). They became a standard, and inexpensive, item of trade during the seventeenth century and through the nineteenth century in European dealings with the Native Americans. Mid-nineteenth century glass beads were traded for African gold, ivory, palm oil, and slaves (Karklins 1985).

Large quantities of glass beads were manufactured in Venice/Murano, Bohemia, and the Netherlands. Germany, Austria, England, France, and China also contributed to the glass bead market in North America (Karklins 1985:114). Unfortunately, it is virtually impossible to determine a bead's place of origin because so little research has been concerned with defining the characteristic chemical composition of each country's glass. Ascribing anything beyond a very approximate manufacturing date for most standard beads is equally difficult.

Four types of glass beads are typically found on historic sites along the east coast of North America: drawn, wound, mold-pressed, and blown. Drawn beads were manufactured by two men stretching a tube of molten glass up to 300 yards from a hollow globe of molten glass (Kidd and Kidd 1970:48-49). Several different colors of glass could be intertwined with the glass tube for decoration. When the glass tube cooled, sections were broken off and sorted by diameter size. Individual beads were cut from these sections by placing them on a sharp iron chisel and striking it with a blunt-edged plate of metal (Anonymous 1825:120;1835:79).

These beads could be left unaltered, have facets ground on the surface, or simply have the rough ends ground until the bead was smooth and round. Prior to 1817, beads were rounded by placing them in a large pan with sand and wood ash, or plaster and graphite. The pan was then heated and stirred continually (Anonymous 1825:120). This process slightly melted the beads as it chemically abraded them. After 1817, Venice bead manufacturers began mixing rough beads with plaster and graphite, or clay and charcoal dust. This mixture was "tumbled" in a iron drum which was heated and rotated in an oven (Orchard 1929:85). After these steps, the cooled beads were cleaned and sorted through several graduated sieves (Kidd and Kidd 1985:89). Drawn beads can be made in a variety of shapes, ranging from short tube beads, to round beads.

Wound beads, also called wire or mandrel wound, were manufactured by winding a molten strand around a spinning metal mandrel. The size of the finish bead depends on the number of times the molten glass strand was wound around the mandrel. When still soft, the wound beads could be decorated with inlays, appliques, ground, or pressed with paddles to shape the bead. After cooling, the beads were removed from the mandrel. Typically, despite any decorations, wound beads have tell-tale swirl marks around the bead axis.

Mold-pressed beads, also known as molded, pressed, or mandrel-pressed beads, are made by two manufacturing techniques. In the first technique, a glass rod was heated over flame until it became molten, then a piece of this molten

glass was pressed into a two-piece mold. A pin was inserted into the mold to form the perforation. In the second method, two separate pieces of molten glass, were pressed together in a two-piece mold. This resulted in multi-colored beads. After the molded beads had cooled, the mold seams were usually ground smooth. Mold-pressed beads often exhibit an "orange peel" surface or slight mold seam ridges (Karklins 1985:100).

Blown beads were manufactured in three different manners. In the first method, a glob of molten glass is placed on the end of a hollow pipe and blown into a bubble with slight hollow projections on each end. The projections were broken off creating the perforation through the bead, and the rough edges were fire-polished. The second method involved blowing glass into a two-piece mold. The final method required a heated glass rod which was fashioned into a series of blown bubbles. These were subsequently broken into separate beads (Karklins 1985:101). Blown beads could be decorated by painting or injecting paint, colored wax, powdered fish scales, or metal dust into the bead interior (Pazaurek 1911:2).

The beads recovered in association with the Structure 1 slave quarters at Pohoke include a single, drawn, translucent, blue glass bead with ground facets, and one mandrel-wound, opaque, olive glass bead (Figure 71). Numerous beads, particularly blue glass beads, have been recovered from nineteenth-century slave sites along the eastern area of North America and the Caribbean. These beads were certainly decorative as necklaces or earrings, but may also have had special significance to African slaves. It has been suggested that, for slaves, blue beads carried the power to ward off the "evil eye" or anything else harmful (Theresa Singleton 1989: personal communication). The recurrence of blue beads on slave sites would imply that they did hold some special meaning to many slaves.

One paste glass gem was recovered at Structure 1. The molded white frosted gem measures one inch in length and three-quarters-of-one-inch in width (Figure 71). The gem is ground with a beveled edge. This jewel was probably set in a metal mount and placed over a painted or papered surface to create a more colorful, simulated gemstone. The size and shape of this gem suggest it was probably worn as a pendant, an earbob, or a watch fob.

One jewelry mount fragment was also recovered within the slave quarters. This tiny brass gem mount may have been part of a more complex design. Nineteenth-century brooches and pendants incorporated many small stones in their designs. These stones were typically held by mounts such as this.

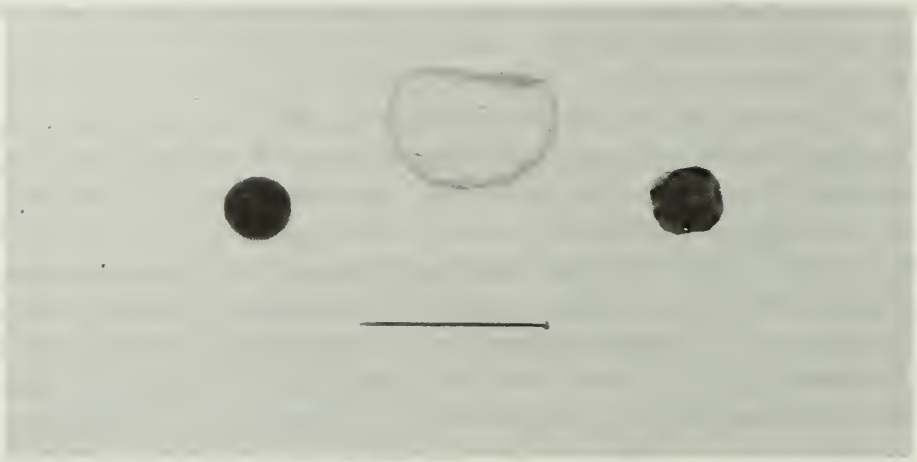


Figure 71 This frosted glass paste gem (center), faceted blue glass bead (right), and mandrel-wound olive glass bead were found at Structure 1. Scale: one inch.

One carved horn jewelry fragment was recovered from the Structure 2 refuse pit. This polished horn fragment measures one inch in length and two millimeters in diameter. This delicate item may have been part of an earring or a lavalier. The objects fragmentary nature makes further speculation impractical.

The domestic slaves serving the mansion house at Portici contributed two finger rings to the archeological record (Figure 72). One ring is carved of ebony. The interior diameter measures 16 millimeters. The fragment of a second ring carved from horn was also recovered. The interior diameter of the horn ring is 17.3 millimeters. Finger rings were often considered very powerful amulets because of their circular shape. Several African cultures associated circles with the sun and its live-giving powers. The continuous form of circles has also symbolized eternity. Many peoples believed in a strong connection between the ring and the wearer to the degree that the fate of one was shared by the other (Schiffer 1988:7). If this were indeed the case, things did not bode well for the wearer of the horn ring.

Figure 72 Carved ebony finger ring (right) and carved horn finger ring fragment associated with Portici's domestic slaves. The interior diameters of these rings correspond to contemporary finger ring sizes six and seven, respectively. Scale: one inch.

Figure 73 An ornate carved horn finger ring (lower right) was recovered from a nineteenth-century slave context at Monticello. Other possible slave artifacts from Mulberry Row include a single cowrie shell and two Spanish reals (Courtesy Barbara Heath).

Figure 74 "Tree of Life" medallion recovered from Portici's mansion house. The obverse face (top) of this medal is decorated with a stylized tree symbolizing the tree in the Garden of Eden which yielded fruit that gave everlasting life to those who ate of it. The leaves of this Tree of Life were allegedly used to heal nations (Gen. 2:9, 3:22; Rev. 22:2). The medallion's reverse face (bottom) is stamped with a circular, pillared, temple-like structure. A crescent moon rests on the pinnacle of this temple which closely resembles a tabernacle. A small altar within the temple supports a chalice containing the Host or "body of Christ." Poorly preserved letters of two Latin or German words encircle the temple. Scale: one inch.

The planter family and the military occupation of Portici plantation also left behind several personal adornment items. One brass jewelry mount fragment was recovered. A token, possibly a religious medal, was also found. This medallion is embossed with a raised design of the "tree of life." As there is no hole through which a chain could suspend it, the medal was probably held with a metal frame around it (see Figure 74).

Currency

Human beings have always recognized that some form of compensation was necessary in exchange for an item of value or a specialized service. It was for this very reason that different bartered goods acquired values, a scarcity in supply drove value up just as a glut caused devaluation. The bartering system had an inherent problem, that of determining worth. Coinage was an attempt to solve this problem. Gold, silver, iron, copper, brass, and lead have all been assigned a variety of values throughout time. The complete history of coinage is beyond the scope of this work. A discussion concerning those coins recovered from Pohoke and Portici, however, is necessary.

The United States government minted its first coinage in cent and half cent values in 1793. Cents and half cents were struck every year from 1793 to 1857, with the exception of 1815 when a copper shortage prevented minting. All coins of this period were struck at the Philadelphia Mint. The early cents and half cents exhibit greater variety than later coinage because early dies were individually made. Many of these coins also have misleading dates, because dies were used and reused the coins were struck well after the dates exhibited on the currency (Yeoman 1985:61).

The Structure 1 slave quarters at Pohoke contained three coins. Two of the three coins found within the quarters are large cents and the third is a half cent. The 1804 half cent is of the "draped bust" type minted between 1800 and 1808. The single large cent dated 1819, is of the "coronet" type with a "matron head." These were struck between 1816 and 1835. The second large cent is also a coronet type, dated 1849. This coin has the initials "N L E" over "A W" carved on the coin face. Radiating notches are cut around the edge of the coin encircling the letters (Figure 75). No coins were recovered from the Structure 2 refuse pit.

Five coins were recovered at Portici. Two coins were found in the domestic cellar slave quarters. Both coins are large cents of the coronet type with a matron head design and are dated 1816 and 1830.

Three coins are associated with the planter/military occupation at Portici. One is a large cent of the coronet type with a matron head design dated 1828. The other two coins are small cents. Small cents were minted between 1856 and 1858, with a "Flying Eagle" design. In 1859, they were redesigned with an Indian princess as the obverse design and a laurel wreath on the reverse. In 1860, the reverse was changed to an oak wreath beneath a shield (Yeoman 1985:80-81). The small cents recovered archeologically are dated 1860 and 1861. They are made of a copper-nickel alloy that was minted only between 1859 and 1864 (see Figure 76; Stephen Potter 1990: personal communication).

Figure 75 This 1849 Large cent found at Structure 1 may have been a "lover's token" or sentimental keepsake. It is carved with the initials "N L E" above "A W". Scale: one inch.

Figure 76 Nineteenth-century currency from Pohoke and Portici includes this 1816 Large cent (top left), 1819 Large cent (top right), 1804 Half cent (bottom left), and 1861 Indian Head cent. Scale: one inch.

Pen Knives

Pen knives, or clasp knives, were created in cutler's shops. Cutlers manufactured various types of knives, swords, razors, and scalpels as well as everyday table cutlery. All these implements were hand-made from various types of steel until the mid-nineteenth century when machines began mass producing these cutting objects. Steel was made in the eighteenth century by slowly heating wrought iron bars for a week. This caused the iron to absorb carbon, hardening the metal. The product was called "blister steel," which exhibited a hard exterior and soft, brittle interior. Blister steel could be applied as edging on top of regular iron for axes, carpenters planes, and table and butcher knives to provide a better cutting edge (Tunis 1965:50).

Additional heating and hammering of blister steel produced "tilted steel." Tilted steel was then heated once more, cut into pieces, welded together, and repeatedly hammered, melding the soft and hard fibers of the metal. This produced "shear steel," which was used for cutting-shears (Tunis 1965:50).

Cutting implements, such as scalpels and razors, which required a sharp edge, were imported from Sheffield, England. The shear steel made in North America was used for penknives, scissors, cold chisels for blacksmithing, and carpenters wood chisels and plane blades. These tools, including pen knives, were fashioned on anvils, with repeated hammering and heating by the cutler. The best cutlers made blades for penknives and all other knives with two degrees of hardness. The haft portion of the blade was supple, bending slightly to support the harder cutting portion of the knifeblade. The cutting edge on finished knives was ground on a sandstone wheel (Tunis 1965:51).

Blade handles were covered with wood, ivory, or bone. These handles were generally either one solid piece or two riveted pieces on table and butcher knives. Pen knives, however, required two separate handle pieces. These were riveted together on either side of the metal haft, providing a space to protect the cutting edge of the penknife when it was closed (Tunis 1965:51).

One pen knife blade fragment was recovered from the Structure 1 slave quarters at Pohoke. A second cutting implement, with an embossed, brass-sheathed, wooden handle, was recovered from the lower strata of the refuse pit in Structure 2. These poorly preserved fragments of thin brass sheathing, over a wooden interior form, may represent the handle of a shaving razor or a small penknife. This implement appears to be associated with the earlier occupation of the eighteenth-century dwelling house at Pohoke plantation. The ethnicity of

this objects owner is unknown. A single pen knife blade fragment was found at Portici. This knife is associated with the planter/military occupation. Neither of these knives retained their handles.

Eye Glasses

Two pair of spectacles are represented in the archeological record associated with the planter/military occupation of Portici's mansion house. A single, colorless, glass lens from a "Pince-Nez" style pair of eye glasses was found. These glasses were designed with half-lenses and were worn perched on the bridge of the nose. Portions of a frame arm from a pair of brass wire eye glasses complete the items associated with nineteenth-century vision. This second pair appears to be simple wire frame eye glasses which hooked behind the wearers' ear. The brass frames may have been gold or silver-washed.

14 SLAVERY AND COLONOWARE

The history of slavery involves the complicated interaction between enslavement, the slave trade, and the cultures it developed. This interaction generated a system in which slavery formed the base for the political economy of many parts of the African continent. Conversely, the same trade created societies, particularly in the New World, with political, economic, and social structures founded and dependent on this form of imported labor. Archeological and historical studies of slave life continue to expand contemporary understanding of the material conditions of human bondage. The nature of slave communities within, and apart from, the plantation systems they built and to which they ultimately belonged, is also imparted through these inquiries. Such investigations also provide insights concerning the slaves themselves and their adaptations to life in the New World.

A Brief History

An estimated 200,000 to 300,000 Africans were imported to North America through the industry of the Atlantic slave trade (Lovejoy 1989:371). North American shippers obtained most of their human cargo in Sierra Leone. Their auxiliary sources were Senagambia, the Upper Guinea Coast, and the Gold Coast (Figure 77). Approximately 50% of these enslaved individuals were Bantu-speaking peoples from matrilineal societies. The total number of Africans exported to the United states was relatively small in comparison to the volume of the French, British, and Muslim trades. The property of the latter generally remained enslaved on the African continent (Lovejoy 1989:374).

The ethnicity ascribed to the slaves exported from these areas was generally defined in terms of the commercial systems through which they were moved out of Africa. A slave's place of birth or residence was often deep in the continent's interior though they were ethnically identified by the region or place of export. This process, wherein the point of export replaced the actual point of ethnic origin, tended to produce some degree of ethnic amalgamation, and confusion (Lovejoy 1989:378-379).

Most of the people who inhabited Piedmont Virginia arrived from the Tidewater-area during the land-consuming days of tobacco farming. Piedmont settlements flourished with the gradual appearance of multiple-grain plantations in the wake of tobacco-leached soils. As roadways were cut to access the mills and markets so essential to the survival of these new plantations settlement continued to grow.

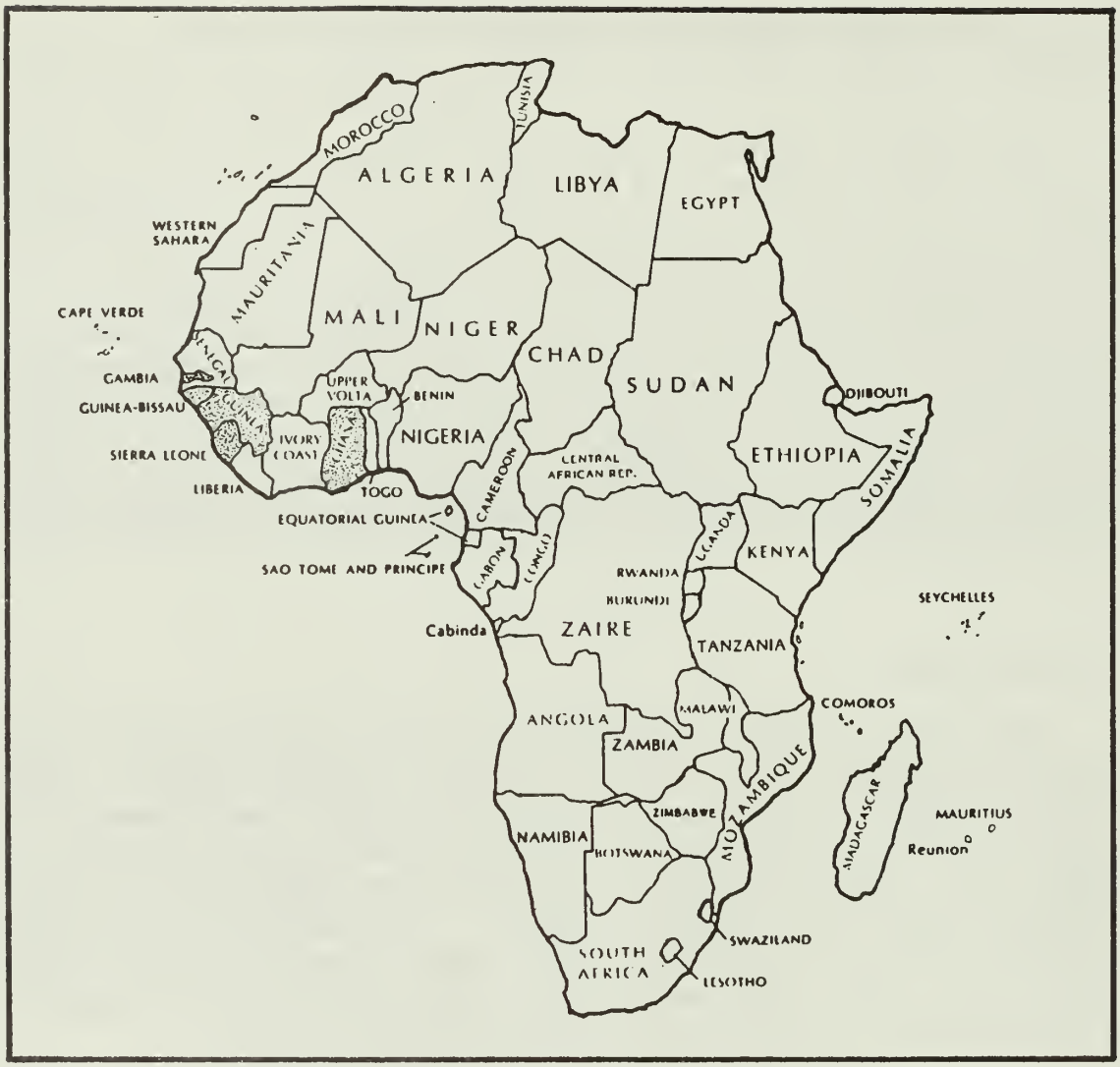


Figure 77 Contemporary map of the African continent. Shaded areas depict primary sources tapped by North American shippers participating in the Atlantic slave trade.

The Africans who came to reside in Piedmont Virginia differed markedly from the other individuals who settled this area. Most European immigrants arrived with or were soon joined by their kinfolk. Many arrived with nothing, often as indentured servants. Yet, most of these Europeans chose to relocate to the United States as willing immigrants. The Africans were not willing immigrants. They were displaced, uprooted residents of commercial cities and agricultural villages who were distributed to a labor-hungry market (Otto 1984:81).

The African immigrants were slaves. Technically, a slave is defined as an individual who is the property of, and wholly subject to, another individual (Stein and Urdang 1982:1235). Slaves built, maintained, and defined the New World plantation systems. The sizes of plantations were, in fact, traditionally based on the number of slaves and not the acreage involved. Plantations with 100 or more slaves were considered large. Twenty to 100 slaves formed a mid-sized or middling plantation. Small plantations retained less than 20 slaves (Moore 1985:144).

Pohoke and Portici were middling plantations maintaining between 20 and 50 slaves throughout the successive administrations of Spencer, Betty, and Alfred Ball from 1799 through 1853. Portici was reduced to a small plantation during the nine antebellum years when the Lewis family was in residence (Prince William County Property Tax Records 1799-1861; Appendix A).

Plantations have assumed a variety of forms in different places through time. A plantation is essentially a tract of land which is used primarily for agricultural production. There are discrete spatial boundaries and an organized settlement pattern which maximizes the economic productivity while maintaining a distinct social stratification. Plantation society includes at least two classes of people -- those who work, and those who direct the work. Consequently, a rather unique set of social relationships developed. The plantation's settlement patterns, which involved the physical appearance and placement of the architectural structures, generally reflects this hierarchical arrangement.

As a part of these social relationships, planters often grouped their slaves into categories based on the location of or the type of duties assigned (Orser 1990:113). The three major classifications were house servants, skilled craftsmen or artisans, and field hands (Kelso 1984). Hierarchies often existed within each group to further differentiate between individual slaves. According to a nineteenth-century white plantation observer, slaves generally sought better positions within this hierarchy because the planters often accorded the most prestige, and consequently, the most privileges and goods to the slaves in higher positions. The extensive archeological record and limited historical documentation suggest that all three classes of slaves were present at Portici plantation at various times .

Slaves who conformed and worked in a manner which was consistent with the planter's desires were often rewarded. Such praises were often manifested as money, gifts, special foods, extra clothing, trips to town, and sanctioned social gatherings such as dances or dinners. Slaves who failed to conform were often demoted within the plantation hierarchy (Orser 1990:116).

During the eighteenth century when tobacco was "king," the management of plantation slave systems was based exclusively on producing tobacco for market and cultivating grain and livestock for subsistence needs. When grains replaced tobacco in the Virginia Piedmont during the early nineteenth century, planters developed more efficient use of their slaves. Throughout the first half of this century, the majority of the rural white population were farmers. Slaves essentially became an agricultural family's extra hands on the nineteenth-century grain-plantations. They worked at and assisted with all aspects of farming from wood-chopping to dairying, in addition to planting and harvesting crops. Larger planters availed themselves of this increasing demand for farm laborers and often rented out much of their labor force. In spite of the cost, poorer farmers welcomed the opportunity to increase their ability to consume (Kulikoff 1986:431).

The larger planters who wished to keep the majority of their slaves in residence often pursued various avenues of home- and plantation-industries. This usually involved the purchase of spinning wheels and looms, raising sheep, and cultivating flax or small cotton crops (Kulikoff 1986:432). Planter wives generally instructed their female slaves in the arts of both cloth- and garment-making. This removed many of the female slaves from the fields while often producing enough fabric for all the plantation residents, white and black, as well as surplus cloth for sale (Swann 1977:20-22).

Portici's Alfred Ball apparently followed in this tradition of renting or leasing slaves (Prince William County Court Will Book Q, Role 23; Appendix M) and of establishing various in-house industries. One flax wheel and two wool spinning wheels, cards, and 700 head of sheep are listed on Ball's 1853 and 1854 estate inventories (Appendices K and L). The steps involved in making fabrics were tedious and time-consuming. In home-industry it was the exclusive province of women. It was a task most often assigned to unmarried daughters, sisters, slaves, and servants. The task was more dreary than onerous and one which suited the nineteenth-century's stereotype of all single women. Because single women were most often the persons who did the spinning, the derogatory connotation of the word spinster evolved.

Spinning wheels used for wool were large and turned by hand. Called a "walking-wheel," they required the spinster to back away from the wheel while the

yarn was spun and then move forward to the wheel to wrap the yarn on the spindle. Producing yarn on a walking wheel was often a wearisome task indeed. Flax wheels were smaller and operated by a treadle. The spinster could be seated while producing her linen threads. The flax wheel had a more sophisticated mechanism called a flyer which automatically wound the yarn on the spindle after the turning wheel twisted the thread (Swann 1977:20-22).

Flax and wool crops were not limited exclusively to fabric production. Flax seed bolls were also pressed into linseed oil afterwhich the hulls could be baked into linseed cakes. Whole flax seed bolls were also used as cattle fodder (Seymour 1984:177-178). Aside from the obvious nutritional value of occasionally butchered wool-bearing sheep, they are also a prime tallow source for candle and soapmaking (Seymour 1984:116). Sheep-skins were also a marketable commodity. Seventy processed sheep and calf skins listed on the 1854 estate inventory suggest that small-scale hide tanning was also one of the many trades practiced by skilled slaves at Portici. Archeological and historical evidence suggest carpentry and blacksmithing were also conducted (see Chapter 10).

Additional plantation-industries conducted under Alfred Ball's watchful and industrious eye included a small apiary. At least six bee stands produced honey and honeycombs along with wax for candlemaking. Interestingly, 30 bags of bat guano appear on the estate inventory listing. High in nitrates, the guano may reflect extensive fertilizing or might have been used for manufacturing gun powder or blasting powder (Michael Phillips 1990:personal communication).

Analysis of Colonoware from Pohoke and Portici

Numerous archeological investigations have been conducted regarding the material culture of slaves throughout the American south. One of the most interesting, and currently most controversial, concerns the manufacture of an earthenware pottery known as colonoware.

The manufacture of colonoware began sometime after 1650 and terminated sometime before the forth decade of the nineteenth century (Stephen Potter 1990:personal communication). In spite of the fact that this ware spans both the colonial and postcolonial periods this term continues to describe the low-fired, unglazed, earthenware recovered from historic sites throughout the American south. Originally, colonoware was thought to have been manufactured by Indians for their own use and for trade with the European immigrants and their African slaves (Noel Hume 1962). Documentary evidence supporting this premise has been located, at least in South Carolina (Lees and Kimery-Lees 1979:12). Current

historical and archeological research in the Chesapeake Bay region indicates that both Native Americans and African slaves manufactured colonoware (Stephen Potter 1990:personal communication).

Unglazed, low-fired earthenwares associated with historic artifacts in distinct stratigraphic zones were recovered at both Pohoke and Portici. This colonoware represents four percent of the total ceramic assemblage recovered from Pohoke, site 44PW335. A minimum of 24 vessels and one tobacco pipe are represented by these 253 fragments. At least eight vessels and four tobacco pipes are present in the 34 colonoware fragments recovered at Portici. These sherds constitute one percent of this site's ceramic collection.

Colonoware recovered from both sites, excluding the tobacco pipes, was coiled. This manufacturing technique involves placing hand-rolled, snake-like, strands of clay, one on top of another, in a circular column. The first strand or coil, is placed on a flat piece of clay which forms the base of the vessel or object constructed. Clay coils are added horizontally until the desired height of the object is achieved. The coils are then pressed or smoothed together with the potter's hand or tools such as pebbles, a wooden disk or spatula, or a mushroom-shaped clay or wooden pottery trowel. This smoothing produces a finished appearance and reinforces the vessel by blending the coils together.

The interior and exterior vessel surfaces of the colonoware are smoothed. Many of the vessels have been burnished, or polished, with sticks, bones, or pebbles. The vessel exteriors exhibit unintentional, irregular, discolorations known as fire-clouding. These marks suggest the objects were fired in open-air kilns. Most vessel interiors have been intentionally blackened with soot or charcoal. No tempering agent is visible in any of the pottery fragments.

Colonoware vessels recovered from Pohoke and Portici are European in form. With the exclusion of tobacco pipes (see Chapter 7), the forms represented in these assemblages include primarily small, utilitarian serving bowls. A single cup or tumbler, and shallow pans or dishes are also present. Items recovered in the archeological record suggest the need for larger storage containers was satisfied by both local and imported stonewares or glass jars. Cast iron cooking pots were used to prepare the one-pot meals and stews served in these bowls.

The single attribute shared by all vessels in this collection is the basal form. All vessels are flat-bottomed. The majority of these bases exhibit flat bases with raised, flat-footed bases resembling a solid foot-ring. While this styling reflects European forms, flat-bottomed prehistoric ceramic vessels have been recovered in the Maryland-Virginia tidewater. This pottery form may yet be found in the

Virginia Piedmont as archeological work progresses (Stephen Potter 1990:personal communication). A variety of rim and lip treatments are present in the collection from these sites (Figures 78; 79; 80).

The colonoware is associated with three distinct phases which appear to correspond to the various occupational stages. Fragments associated with Phase I demonstrate a mean date range from circa 1733 to circa 1772. The mean dates were calculated from the European and commercial American ceramics associated with the colonoware sherds. At least three vessels which appear to be shallow bowls are included in the first phase which is probably associated with this tract's earliest tenants who resided at Pohoke's Structure 2 (Figure 78).

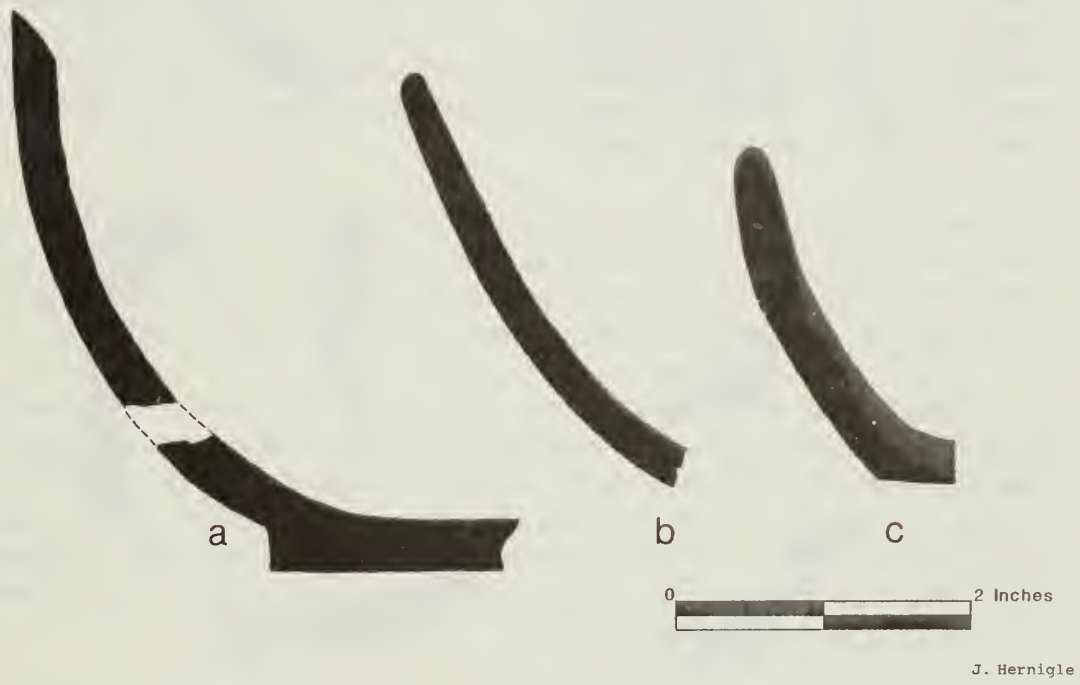


Figure 78 Phase I colonoware bowls recovered at Pohoke. Vessel **a** features a beveled lip and a flat bottom with a raised, flat-footed base resembling a solid foot-ring (vessel diameter: 8 inches). Vessel **c** exhibits a simple, rounded lip and flat base (vessel diameter: 9.75 inches). The mean date range of Phase I is circa 1733 to circa 1772.

The second, and largest, phase includes a minimum of 13 vessels with a mean date range from circa 1791 to circa 1841. These vessels were recovered at both Pohoke and Portici. They are apparently associated with Spencer and Betty Ball's occupation at the two plantation sites. Phase II includes an extensive variety of colonoware vessels (Figure 79), including two small storage vessels, six shallow bowls, two serving bowls, and two shallow pans or dishes.

Two Phase II vessels exhibit particularly interesting features. Vessel h is a straight-sided form with a relatively small, three-inch diameter, and a cut-lip. These qualities suggest a functional design as a tumbler or drinking container. The interior is smoothed and burnished. The exterior is whittled in an angular manner. This whittling was done before the vessel was kiln-fired. These paring marks may represent an inexperienced potter who cut a thick-walled vessel into a thinner form (Leland Ferguson 1990:personal communication). The faceted quality of these cuts however, appear to be more of a calculated design then a reduction episode. Vessel i features an excurvate wall with an added rim-strip. The added exterior rim strip has a flattened-lip and tooled exterior resembling the vessel finishes of nineteenth-century American stoneware forms. This vessel is approximately six inches in diameter.

The third phase is confined exclusively to the nineteenth century and to Portici, site 44PW348. The mean date range is from circa 1806 to circa 1863 and is associated with Alfred Ball and the Lewis family occupation of the plantation. A minimum of four shallow bowls represent this late phase (Figure 80).

These three manufacturing, or use phases, into which the colonoware fragments have been placed is based on the mean date ranges calculated from ceramics associated with the sherds, range from circa 1733 through circa 1863. These dates and the location of these fragments within the sites leave little doubt that the vessels were used by the plantation's African population. Whether the pottery was manufactured by African-American slaves, either on this plantation or neighboring estates, is not known.

The earliest date associated with these wares is approximately 60 years after the last indigenous Native Americans resided in this area of the Virginia Piedmont (Michael Johnson 1988:personal communication; Stephen Potter 1989:personal communication). Therefore, it is unlikely that these vessels were manufactured by Native Americans. It remains to be demonstrated whether European-American potters are another possible source for the manufacture of this ware.

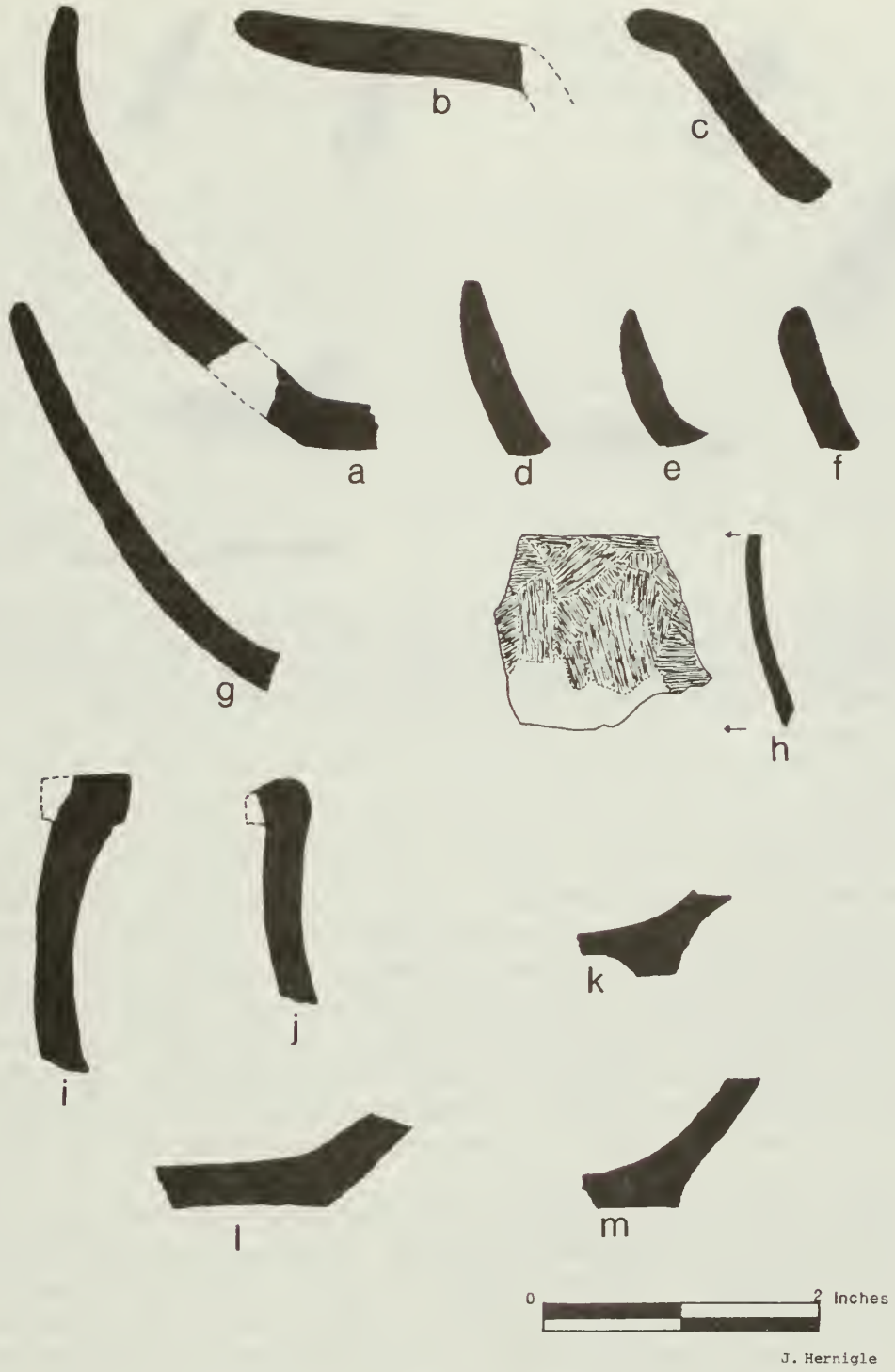


Figure 79 Phase II colonoware from Pohoke and Portici. Vessel **a** is flat-based bowl with an excurvate wall and rounded lip (vessel diameter: 7.25 inches). Vessels **b** and **c** are lightly burnished serving bowls. The rim fragment from vessel **b** has a cut-edge (vessel diameter: 7 inches). Vessel **c** features an everted-rim with a rounded-lip (vessel diameter: 7.25 inches). The shallow bowls represented by vessels **d**, **e**, and **f** have highly burnished interior and exteriors. Vessel **d** has a direct-rim with a rounded-lip (vessel diameter: 7.25 inches). Vessel **h** is a straight-sided drinking container with a cut-lip and whittled exterior (vessel diameter: 3 inches) Vessels **i** and **j** display highly burnished interiors with flattened lips and added rim strips (vessel diameters: 5.75 inches and 5 inches). The mean date range of these Phase II vessels is circa 1791 to circa 1841.

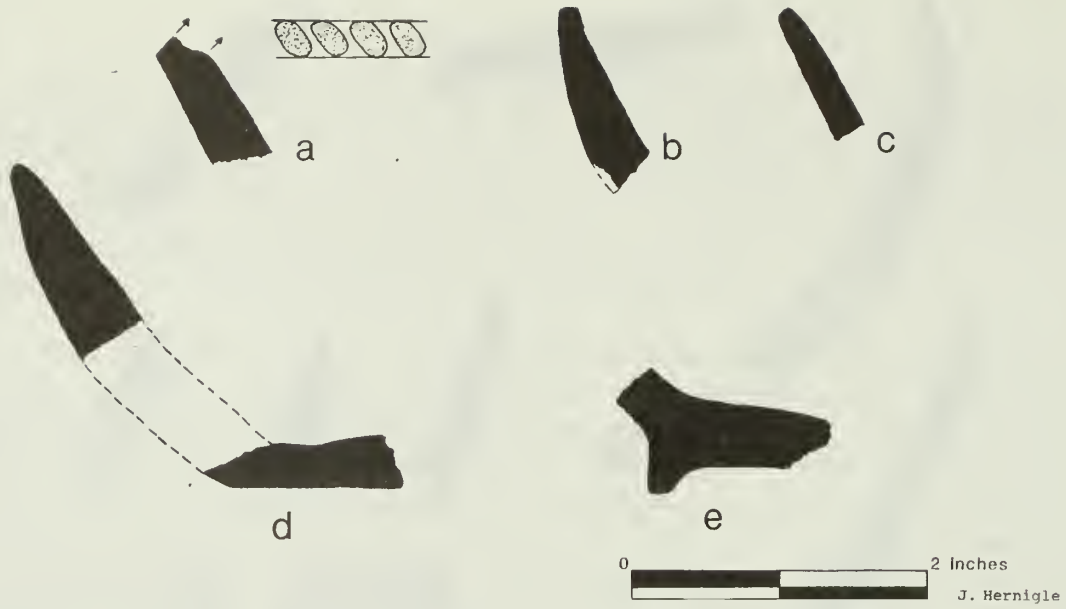


Figure 80 Phase III colonoware from Portici. Vessel **a** features a beveled lip with a single row of finger-crimped decoration along the interior edge (vessel diameter: 5 inches). Two basal forms are included in this collection, vessel **d** is flat-bottomed, vessel **e** has a flat bottom with a raised, solid, flat foot. The mean date range of these vessels is circa 1806 to circa 1863.

Summary

Archeological excavations, status patterns (see Chapter 17), and historical documentation (see Appendices K, L, and M) suggests three classifications of slaves-- house servants, artisans, and field hands-- were in residence between circa 1820 and circa 1853. Historical sources point to the leasing of slaves following the plantation's conversion to a multiple grain economy. Slaves also apparently engaged in various home-industries such as the production of wool and linen cloth and garments, candle- and soap-making, bee-keeping, small-scale hide tanning, and possibly gunpowder or fertilizer manufacture. Archeological and historical evidence also suggest carpentry and blacksmithing were conducted.

African colonoware recovered from slave-associated contexts corresponds to three distinct use or manufacturing phases. European ceramics recovered in association with the colonoware fragments suggest a mean date range of circa 1733 to circa 1772 for Phase I. A minimum of three shallow bowls are included in the first phase. Phase II includes at least eight bowls, two shallow pans and two storage containers. The mean date range for these vessels ranges from circa 1791 to circa 1841. The last phase is represented by a four shallow bowls. Phase III extended from circa 1806 to circa 1863. It is not known whether the pottery was manufactured on this plantation or at a neighboring estate. Further research regarding the source and ethnicity of the manufacturer of this slave-used ceramic is in order.

15 AMERICAN CIVIL WAR MILITARIA

The American Civil War turned this country into a battlefield for four bloody years. Virginia, in particular, served as a theater for much of this period. Indeed, most of the state was transformed into a waste land as this nation fought itself. Militaria includes small firearms, ammunition, artillery, horse and wagons/caissons, uniforms, uniform accoutrements, military medical implements, and personal effects. Soldiers, especially Confederate troops, salvaged all usable war materials after battles. Later, farmers would plow up debris in their fields, with only a fraction of the original material left on the battlefields. Civil War battlefields also contain sites of field artillery batteries, rifle pits, winter encampments, as well as private homes occupied as field headquarters and hospitals.

The lands of the Lewis family's Portici plantation were not spared during this country's struggle. Portici was occupied during the First Battle of Manassas by Confederate forces. Cavalry, infantry, and artillery were deployed in the vicinity of Portici (see Appendix B). A Confederate battery, under the command of Capt. A.L. Rogers of the Loudoun Artillery, was set up near the plantation orchard and the Ball family cemetery. They proceeded to fire shells at the Federal troops within their range during a portion of the day (James Burgess 1990:personal communication).

Gen. Johnston used Portici mansion as his headquarters during the First Battle because it commanded an unobstructed view of the battlefield. Following the battle, the Lewis house was transformed into one of many Confederate field hospitals. Both Federal and Confederate wounded were taken there. Surviving Federal prisoners were subsequently taken to Richmond, Virginia, and Charleston, South Carolina, prisons (Ricketts 1861).

In the interim between battles, troops passing through the area used Portici as shelter. Later, during the Second Battle, the main body of fighting lay to the north and west of the plantation, concentrated around Brawner Farm. There was, however, a cavalry battle on the terrace southeast of Portici on August 30, 1862. Portici continued to provide shelter for soldiers until sometime in 1863 when flames claimed the main structure.

Firearms and Ammunition

Firearms

The side (pistols and revolvers) and shoulder firearms (muskets, rifle-muskets, rifles, carbines, and musketoons), and their respective ammunition used in the fighting at Manassas varied widely. While technological advances had out-paced the flintlock muskets, many men carried these firearms in the early battles of the Civil War. Flintlocks had been the standard firearms of both English and Americans from the 1670s until the 1840s (Bearss 1990:personal communication).

Flintlock muskets were a mechanical improvement over their predecessor, the matchlock musket. The matchlock contained a constantly burning match of twisted fabric which ignited the powder. These weapons were extremely unreliable in a fight and as often as not, the gun would fail to discharge. Flintlock muskets removed the burning, and highly visible match, and replaced it with a flint and steel combination (Noel Hume 1969:214).

The gunflints associated with flintlock muskets are much more prevalent on archeological sites than any actual wooden or metal firearm part. Early "flints" were in reality knapped from chert, a siliceous stone, and were called "gunspalls." Gunspalls differed in shape as the siliceous stone flaked in numerous patterns depending on its crystalline structure. These gunspalls had rounded backs and no sides. During the late seventeenth century, a gunflint industry was established in the Suffolk area of England.

These gunflints were fashioned from true flint found in nearby chalk beds. The industry was mass-producing gunflints from prepared flint blanks or blades in the eighteenth century. This regulated approach resulted in more standardized gunflints, which were prismatic in form with flat backs. These English gunflints were created in either gray or black colored flints, native to England (Noel Hume 1969:220).

The French also produced gunflints during the eighteenth century. These gunflints differ in color and form from their English counterparts. French gunflints were of honey-colored, blond, or brown flint (Noel Hume 1969:220). Color, however, is not always a reliable indication of the country of origin. The French gunflints also have a more rounded overall appearance than the English, caused by additional secondary flint knapping (Noel Hume 1969:221).

During the Revolutionary War, both British and American troops used French gunflints, which were generally considered superior to English flints. However,

by the War of 1812, British soldiers were using equal numbers of English gunflints as well as French. During the first half of the nineteenth century, American and English traders in the western United States sold only English gunflints (Noel Hume 1969:221). Presumably, English gunflints were also the predominant type of flints kept in stock by east coast merchants as well.

After 1841, the muzzle-loading flintlock muskets were improved with the invention of the percussion ignition system (Coggins 1983:31). The flintlock mechanisms were replaced by percussion caps throughout the 1850s. The United States adopted the percussion system for military arms with the purchase of Model 1841 rifles (Mississippi Rifle) and the Model 1842 muskets (James Burgess 1990: personal communication). These caps were machine-cut from sheet copper and transferred to a die where the cap was shaped. Percussion caps were tiny cups which held a small charge of fulminate of mercury mixed with one half its weight of nitre. A drop of pure shellac varnish protected the completed percussion cap from moisture and kept the powder charge in place (Lord 1977:190). For this reason, firearms with the percussion cap feature were vastly more reliable in rainy weather (Figure 81).

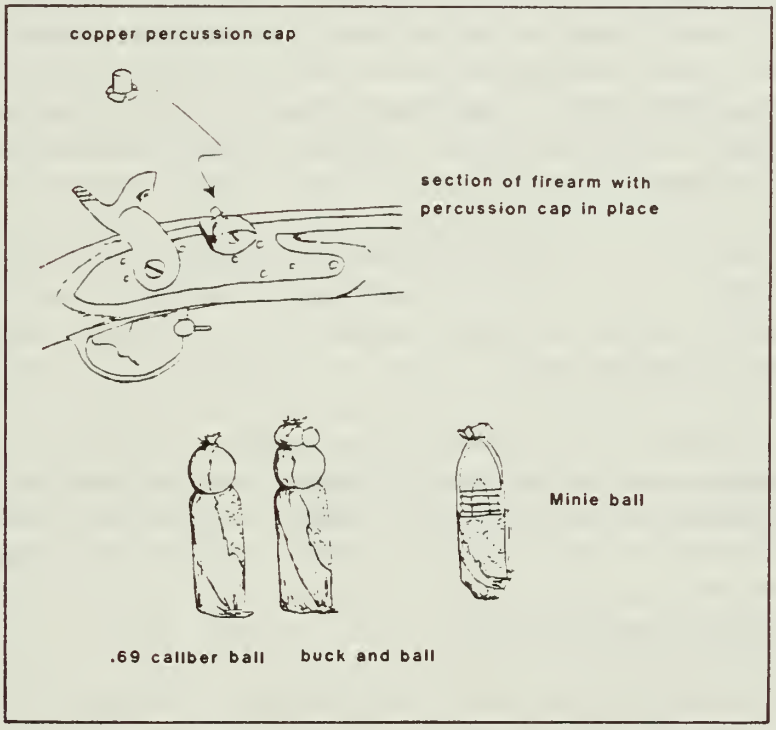


Figure 81 Use of copper percussion caps on firearms and ammunition available during the First Battle of Manassas (adapted from Coggins 1983).

A second important improvement was the rifling of firearm gun barrels. Barrels were incised with spiral grooves designed to give a stabilizing spin to the bullet. By 1855, firearm manufacturers were turning out nothing but rifle-muskets, in addition to retooling some older smoothbore muskets (Coggin 1983:31). However, early rifles used a patched round ball which was difficult and slow to load. The military preferred to use smoothbore muskets which had a higher rate of fire (three to four rounds per minute) with the loose- fitting musket ball.

It was only after the general adoption of the Minie ball in 1855, that the military saw the advantage of rifling the old smoothbore muskets. The Minie ball was easier to load in a rifle barrel than the patched round ball. Rifling inside the barrel improved both the accuracy and the effective range of the firearm (Lord 1977:15).

French Army Capt. Claude E. Minie developed the conical, hollow-based, press-molded lead bullet, known as the "Minie ball." The bullet was slightly smaller than the rifle barrel, but a separate insert in the base of the bullet expanded to follow the grooves when fired. The bullets used in the Civil War were actually a modified version of the French Minie bullets, designed by Virginian James Henry Burton. Burton was the Acting Master Armorer at Harpers Ferry Armory in the 1850s. These bullets eliminated the need for the separate expanding plug in the bullet base. Armories manufactured these lead bullets cold-formed (swaged) in presses (James Burgess 1990: personal communication).

Minie bullets, as well as smoothbore ammunition, were wrapped as paper cartridges (Lord 1977:15). This facilitated loading and contributed to the musket's high rate of fire. These cartridges were kept dry and in one place in each soldiers leather cartridge box.

With the advent of the Minie ball or bullet, cartridges were loaded with various combinations of bullets. The .69 caliber musket could be loaded with a single .69 caliber lead round ball, a .69 caliber round ball with three buckshot in the cartridge ("buck and ball"), or a .69 caliber Minie bullet cartridge. The .58 caliber rifle-musket was also a popular weapon and could discharge .58 caliber cartridges in similar arrangements.

Breech-loading weapons were also developed in the years prior to the war. These weapons fired using percussion caps and paper, linen, rubber, and metallic cartridges. The breech-loading rifles were often much easier to reload than muzzle-loaders, even after becoming fouled with black powder residue. Some officers felt the breech-loading guns were too delicate and would be a hindrance

instead of help in a fight. The cavalry and infantry soldiers, however, quickly saw an advantage to the faster firing weapons. The Burnside, Maynard, Smith, Gallager, and the Sharps breech-loading rifles and carbines were the most successful and their greater firing rate made them much sought after weapons (Coggins 1983:28).

Infantry soldiers could fight with any of the numerous weapons available, whether muzzle-loading, smoothbored or rifled muskets, rifles, breech-loading rifles or carbines. Cavalry troops, however, were at a distinct disadvantage. They could not readily load and fire a muzzle-loading musket or rifle while trying to handle their horses. Instead, breech-loading carbines became their preferred weapon, as it was a quick and repetitive firing weapon, as well as compact. Burnside .54 caliber and Sharps carbines were used by the better supplied Federal troops at both Manassas battles. Confederate cavalry primarily relied on muzzle-loading, smoothbore carbines, and sawed-off shotguns until later in the war (Clark 1985:40-41).

Both Union and Confederate troops desperately needed firearms during the early part of the war. In some cases, old American flintlocks were called back into service and converted to percussion-fire weapons. Both sides looked to Europe to supply their soldiers until American armories could produce weapons. Europe provided excellent firearms, such as the English Enfield .577 caliber (accepts American .58 caliber). Austrian (.54 to .69 caliber) and Belgian rifles and muskets were also purchased. However, not all European weapons were even operational upon arrival. In one instance, out of 3,000 Austrian firearms inspected, only 500 could be used (Lord 1977:245).

The supply from British and Belgian sources was not sufficient and arms agents purchased vast quantities of old-fashioned firearms from Germanic countries. This proved a boon for these countries, enabling them to replace their obsolete weapons with new firearms. However, the American soldiers who attempted to fight with these cast-offs found them heavy, clumsy, of uneven caliber, and possessing crooked barrels. In short, the men detested these weapons (Lord 1977:245).

As late as 1863, the Federal army was officially using 79 different models of rifle-muskets and muskets. There were also over 20 various models of carbines in use. The Confederate troops were in a similar situation with their firearms (Lord 1977:249). The vast array of different weapons resulted in an equally large number of caliber bullets to fit the firearms. Especially in the early period of the war, battlefields contained a bewildering confusion of carbines, calibers, and cartridges.

Artillery

The field artillery weapons (see Appendix B) used at the Battle of First Manassas could discharge four types of projectiles from various types of smoothbore and rifled cannons. These are classified as solid shot, shell, case shot, and canister shot.

Solid shot were spherical cast iron projectiles for smoothbore cannon. If the shot was cast in a elongated, cylindrical, or conical shape it was known as a "solid bolt," designed for rifled guns. The weight of the solid shot was often used to designate the bore size of smoothbore guns and some rifled guns (James Burgess 1990: personal communication). These shot could be used effectively against personnel as well as structures and other military targets (Coggins 1983:67).

Shell was a hollow cast iron projectile filled with a black powder charge. Like solid shot, shell came in spherical and conical shapes. Spherical shells were exploded by time fuses, such as the Bormann or Hotchkiss fuses. Conical shells were detonated by time fuses or impact, "percussion" fuses. The advantage of the time fuses was the ability to determine when and where the shell exploded, whether overhead or in the midst of cavalry or infantry (Coggins 1983: 80-83).

Case shot was a hollow cast iron projectile, either spherical for smoothbore guns or elongated or conical in rifled guns. While cast in the same manner as common shell, the casing was usually much thinner. These projectiles were filled with small lead or iron balls of various calibers, mixed with sulphur or asphalt. This increased the number of projectiles when the shell casing exploded. A time fuse was attached to explode the shot when in the air, scattering "shrapnel" and disabling soldiers and their horses. The term shrapnel was taken from the inventor of the case shot, British officer Henry Shrapnel (Thomas 1985:17).

Canister projectiles consisted of a tinned-iron sheet metal cylinder filled with 27 one-inch cast iron "canister shot" balls, and the remaining space was packed with sawdust. The cylinder was fixed to a large wooden plug on one end and crimped over a heavy iron plate on the other end. When the canister was fired, the thin cylinder broke open beyond the gun muzzle, allowing the canister shot to scatter in a wide pattern (James Burgess 1990: personal communication). These projectiles were used against both infantry and cavalry charges, and had an effective range under 600 yards (Bearss 1990:personal communication).

Uniforms and Accoutrements

Early in the Civil War, any reference to a soldier's dress as "uniform" was a misnomer. Most soldiers lacked standard uniforms, whether a member of Union or Confederate artillery, infantry, or cavalry. Many men volunteered in their home-spun, home-made clothing, bringing hunting muskets with them. Some companies organized their own uniforms modeled on foreign troop dress, such as the numerous "Zouave" units. Other men joined militia companies, which gave no formal military training, but provided splendid matching uniforms to its members. With the exception of those attending military schools, the majority of soldiers at First Manassas shared a common bond -- inexperience. The uniforms were but an outward symptom of the larger problem. Standardization would solve many of the problems, but not until late in 1862.

Many regiments early in the war had buttons on their uniforms, embossed with their respective state's emblems. Later, as the buttons for Union and Confederate troops became more standardized, different embossed buttons denoted the branch of service. On Confederate buttons a capital "A" on a brass button denoted artillery, "I" infantry, "C" cavalry, and "R" riflemen. The Union buttons contained these designations within an embossed eagle. Other general issue Union buttons simply had the embossed eagle.

These brass military buttons were manufactured in one, two, and three-piece construction, just as civilian coat buttons of the nineteenth century. The most prevalent were the two-piece manufacture metal buttons. The emblem on the button crown, or face, was machine stamped by placing the sheet brass in a die. The button back contained a hole for the button shank, through which the ends were inserted, bent upward, and soldered in place. This manufacturing technique was used on American military buttons from 1830 to circa 1930 (Hughes and Lester 1981: 216-217,221).

Typically, as part of the field gear each soldier wore a waist belt with a brass belt plate embossed with Union, Confederate, or sometimes state militia initials. Those soldiers who carried a sword or sabre held them in place with additional leather belts with brass or iron buckles. Some cartridge and cap boxes also had brass insignia plates attached to the leather. A variety of caps or hats on both sides carried brass insignia of some type. Wood, leather, or metal canteens carried water or sometimes liquor. A tent, wool blanket, gumsheet, overcoat, and personal effects were carried inside a knapsack or haversack of leather or canvas.

Analysis

Fifty-seven artifacts associated with the American Civil War were recovered from the area of Portici plantation (Figure 82). Thirty-four objects were found at Pohoke and 23 were recovered from Portici (Table 15:1). The military artifacts from each site were divided into four groups: projectiles, buttons, medical, and miscellaneous.

Pohoke

At Pohoke, 14 pressed-lead firearms ammunition were identified. Five of these are .58 caliber Minie balls, most likely fired from rifle-muskets. Three .64 caliber and one .65 caliber round musket balls were probably discharged from .69 caliber muskets. This may also be the case with one .70 caliber Minie ball, as .69 caliber musket barrel bore diameters often varied enough for several different caliber bullets to fit. One English Enfield bullet was recovered.

Two case shot were also recovered. They may have been used as part of a case shot charge or discharged from a civilian round ball rifle or pistol. One buckshot pellet recovered could have been used by a civilian or as part of a "buck and ball" charge.

Three fragments of melted lead were also among the military assemblage at Pohoke. These lead fragments may have been discarded during the molding of bullets, whether by civilians or military personnel. A brown-hued gunflint from a flintlock musket was also found. The one, stamped copper percussion cap recovered would have been used to discharge one of the newer rifles or rifle-muskets present at First Manassas.

One fragment of cast iron artillery shell and a Bormann time fuse, are reminders of the artillery battery present at Pohoke. The Bormann fuse was unused, but was designed to screw into an artillery shell detonating it at a particular time and, hence, distance. As the battery on this knoll was shelling Union troops at the distant Stone Bridge, this would help ensure explosion over these soldiers, and not before.

Six military buttons were also located. Two brass sleeve or vest buttons and one coat button were embossed as Union general issue "I" for infantry. Two brass buttons were simple embossed Union (Federal) general issue coat buttons. One Confederate Mississippi militia coat button was recovered. These buttons were all manufactured in standard military two-piece button construction, with soldered wire shanks (Figure 83).

TABLE 15.1 MILITARY MATERIALS FROM POHOKE AND PORTICI

ARTIFACTS		QUANTITY	
CATEGORY	GROUP	POHOKE	PORTICI
FIREARMS/ AMMUNITION	.54 CALIBER PULLED/DROPPED MINIE BALL	0	1
	.54 CALIBER MINIE BALL, CONFEDERATE	0	1
	.58 CALIBER MINIE BALLS	3	0
	.58 CALIBER MINIE BALL, 3 GROOVES	1	1
	.58 CALIBER FIRED MINI BALL	1	0
	.58 CALIBER GARDNER INSERT FOR RIFLE	0	1
	.64 CALIBER MUSKET BALLS	3	0
	.65 CALIBER MUSKET BALL	1	1
	.65 CALIBER LEAD CASE SHOT	0	1
	.70 CALIBER MINIE BALL	1	0
	ENFIELD BULLET	1	0
	6 GROOVE DROPPED MINIE BALL	0	1
	CASE SHOT	2	3
	BUCKSHOT	1	1
	ROUND LEAD SHOT	0	2
	MELTED LEAD FRAGMENTS	3	2
	GUNFLINTS	1	1
	PERCUSSION CAPS	1	2
	SUBTOTAL	19	18
ARTILLERY	ARTILLERY SHELL FRAGMENT	1	0
	BORMAN FUSE	1	0
	SUBTOTAL	2	0
BUTTONS	"I" UNION GENERAL ISSUE SLEEVE BUTTON	1	0
	"I" UNION GENERAL ISSUE VEST/SLEEVE BUTTON	1	0
	"I" UNION INFANTRY COAT BUTTON	1	0
	NEW YORK "EXCELSIOR" COAT BUTTON	0	1
	UNION GENERAL ISSUE COAT BUTTON	1	0
	FEDERAL COAT BUTTON	1	0
	MISSISSIPPI MILITIA COAT BUTTON	1	0
	SUBTOTAL	6	1
MEDICAL	METACARPAL SAWBLADE	0	1
	SUBTOTAL	0	1
MISCELLANEOUS	JEWS HARPS	2	0
	BAYONET SCABBARD TIP	1	0
	GROMMETS	4	0
	SABRE BLADE TIP	0	1
	CARTRIDGE BOX FINIAL W/LEATHER PAD	0	1
	HOMESPUN FABRIC	0	1
	SUBTOTAL	7	3
TOTAL		34	23

H. Bonnette

M. Richardson

Figure 82 American Civil War ammunition recovered at Pohoke and Portici include this .58 calibre minie ball (left), .50 calibre pistol or rifle ball (left center), buck shot and .65 calibre ball (center top), .64 calibre pulled ball (right top), and percussion caps (right bottom).

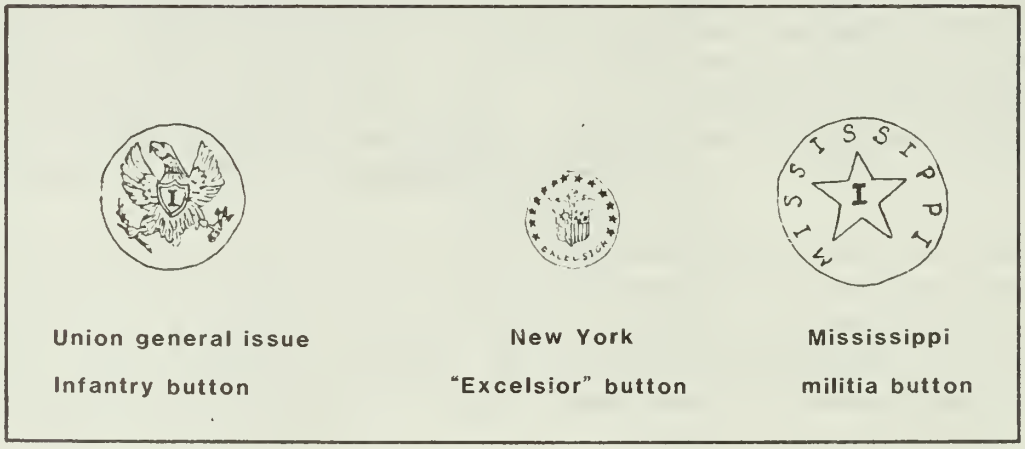


Figure 83 Military buttons recovered at Pohoke and Portici.

The miscellaneous group includes one brass bayonet scabbard tip, four brass grommets, and two iron Jews harp frames. The brass bayonet scabbard tip could have adorned a bayonet scabbard, designed to hold an unattached bayonet, for either a Confederate or Union soldier. The brass grommets may have been part of either a Union rubber tarp or Confederate oil cloth, both used as rain gear and ground cover for sleeping. The two Jews harps may have traveled to battle in a soldiers knapsack for spare-time entertainment.

Portici

At Portici, 13 pressed-lead firearms ammunition were identified. Two of these projectiles are .54 caliber Minie balls fired from either a Model 1841 Mississippi rifle or a Model 1845 Austrian rifle-musket. One .58 caliber Minie ball, as well as a .58 caliber Gardner bullet were found. The .58 caliber Gardner bullet would have been fired by a rifle-musket, and captured Union guns of the same caliber. The .58 caliber Minie ball was designed for Union Springfield-type rifle-muskets, Harpers Ferry rifles, Richmond rifle-muskets, and Fayetteville rifles. One .65 caliber musket ball for use in .69 caliber muskets was also recovered. One misshapen, impacted Minie ball of undetermined caliber was also found. Three case shot and one .65 caliber case shot charge were identified. Two impacted round musket balls and one buckshot, possibly part of a "buck and ball" charge, were also included in the projectiles used at First Manassas.

Two melted lead fragments were located at Portici, as well. These fragments may reflect on-site bullet manufacture in small hand-held molds. Two, stamped copper percussion caps, necessary to fire percussion weapons were recovered. One brown-hued gunflint for a flintlock musket was retrieved. It is impossible to determine if this weapon was used earlier for civilian hunting, or during the battle.

One brass military button was recovered from Portici. It was a two-piece construction coat button with the New York state seal, "Excelsior," embossed on the crown. Given the number of wounded treated at Portici, it is surprising that more military buttons were not recovered.

Singular proof of Portici's service as a field hospital is evidenced in the steel metacarpal sawblade recovered. This amputation saw was found in the walkway near the entrance to the kitchen area, which had been used as an operating room. The small metacarpal sawblade was used to cut through the thin bones of the feet, ankles, wrists, and hands. The surgeon may have broken or lost the blade. It is unlikely that it was thrown away because of the expense of surgical equipment during the early nineteenth century.

Three artifacts are included under the miscellaneous militaria group recovered from Portici. A steel sabre tip was recovered, most likely broken from a cavalryman's sabre. One cartridge-box finial, probably carried by an infantryman, was also retrieved. This cast brass finial knob kept the cartridge-box lid closed. Finally, a piece of home-spun cloth was also recovered. It is impossible to determine what type of garment the cloth belonged, as it was badly charred by the fire which consumed Portici in circa 1863. Its context, however, suggests it was associated with the military occupation of the house.

Summary

The artifacts associated with the military occupation of Portici plantation provide confirmatory, and to a certain extent redundant, information. It was previous knowledge that a nineteenth-century battle had taken place with nineteenth-century weapons. However, many times battlefield objects serve to reinforce the fact that the Civil War occurred during a pivotal point in American history, namely the advent of the Industrial Revolution. The battle coincided with the beginning of the first wave of technological advancements to reach the Piedmont area. Indeed, the Civil War helped to spur on the progressive improvements in virtually all aspects of nineteenth-century life. Technological improvements affected not only the equipment used to wage war, but the medical knowledge applied after each battle.

16 VIRGINIA PIEDMONT PREHISTORY

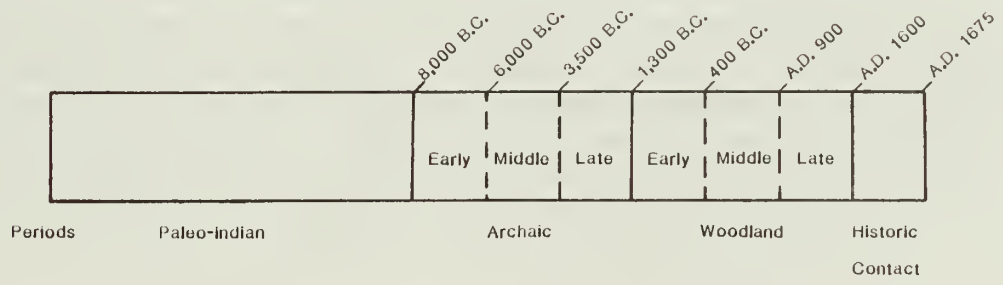
By definition "prehistory" refers to the period of time before events and information were recorded in written form. Despite a lack of written records, recent archeological research has brought Native Americans and their living conditions into focus. The Piedmont area was not a cultural center, but it is an important component in our understanding of the Native Americans. As a "frontier" portion of the Indian world, Piedmont prehistory has the potential to provide pertinent insights into Native American life in Virginia.

A Brief Introduction

Virginia contains literally thousands of prehistoric sites, scores of which have yet to be discovered. Some prehistoric time periods have received more archeological attention than others, thereby skewing interpretations. Similarly, there are specific geographic areas which have had little or no archeological investigation. Unfortunately, one such area is the northern Virginia Piedmont. It is believed that the prehistoric Shenandoah Valley is generally comparable to the Piedmont and much of the information in this chapter is based on this assumption (Johnson 1983:69).

Native American Indians inhabited Virginia for over 12,000 years before the first Europeans were established at Jamestown in 1607. As this includes such a long time span, the Native American occupation is traditionally divided into four time periods. These periods are Paleo-Indian, Archaic, Woodland, and Historic Contact. Sub-periods within each group designate early, middle, and late phases. The dates ascribed to each period or sub-period can vary slightly between geographic areas. The most recent documented dates for the northern Virginia Piedmont are used in this discussion (Table 16.1).

Table 16.1 Prehistoric Timeline



Paleo-Indian Period

The Paleo-Indian period spans the time before 8,000 B.C. in Virginia (Opperman et. al. 1987:11-13; Stephen Potter 1989: personal communication). Paleo-Indians lived together in small nomadic groups. Their manner of subsistence could only support a minimal number of people. To obtain the majority of their food, these groups were hunters of large animals (Parker 1986:16).

Due to the seasonality of game and plant life, Paleo-Indians did not linger in any one location. Small, temporary camps were characteristic of these people who moved, following their resources (Parker 1986:17). The emphasis on hunting in the culture of Paleo-Indians is reflected best in the tool kits recovered from these small Paleo-Indian camp sites. The projectile points, scrapers, choppers, drills, knives, and blades were made from fine grained stones such as chert, jasper, and quartzite. The quality of stone, as well as manufacturing techniques, indicate the importance of these tools in the Indian culture (Figure 84). Tools created from butchered animal bone were also probably part of the Paleo-Indian tool kit (Gardner 1986). These artifacts are not preserved well in the humid climate or acidic soil of Virginia. Consequently, they are seldom present in the archeological record.

To supplement the large game, Indians also trapped small animals and caught fish. They often fished using weirs, which are woven hedges placed under water to trap schools of fish. Hooks of bone were probably used for line fishing, although this would have been less productive than weirs. Much of this meat was probably smoked for future consumption (McCary 1957:21).

Plants also supplemented the Paleo-Indian diet. Wild plants, nuts, berries, and roots were probably gathered by women and children. Paleo-Indians probably made baskets and mats from plant fibers to more efficiently gather these foods. Neither these fibrous artifacts, nor floral food resources, often survive in the archeological record.

A small population, combined with a penchant for mobility, has presented a problem for prehistorians. Native American sites were inhabited for short time periods with few artifacts left behind. Consequently, Paleo-Indian sites are extremely rare, especially within this area of the Piedmont (Parker 1986:18-19).

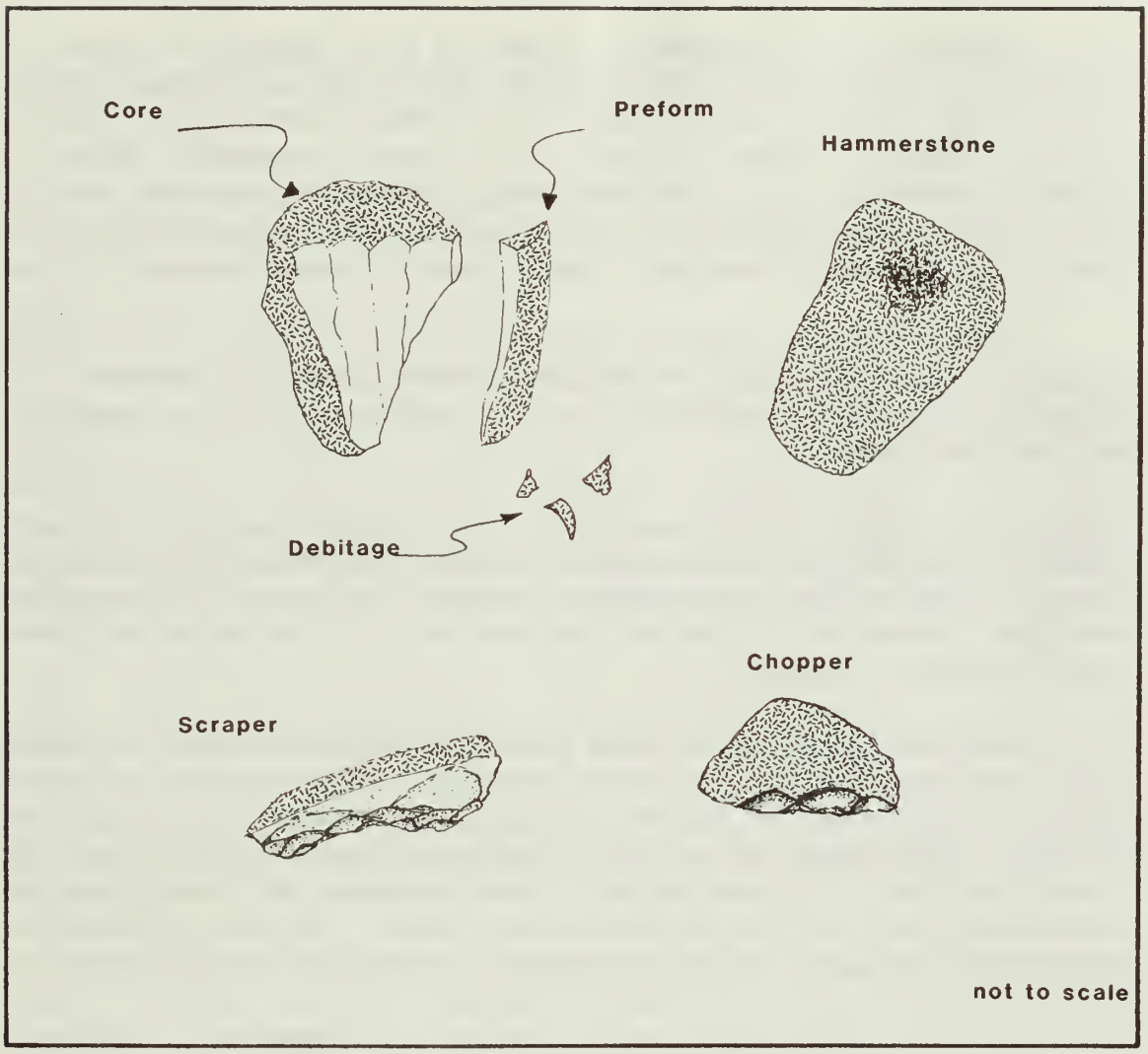


Figure 84 Prehistoric lithic tools.

Archaic Period

The Archaic period spans the time between 8,000 B.C. and 1,300 B.C. The Archaic period in Virginia is divided into three sub-periods: Early 8,000 B.C. to 6,000 B.C.; Middle 6,000 B.C. to 3,500 B.C.; and Late 3,500 B.C. to 1,300 B.C. (Opperman et. al. 1987:11-13; Stephen Potter 1989:personal communication).

Foraging was the dominant way of life for a people who were not dependent on any one particular ecosystem. During the Early Archaic, people settled briefly at camp sites on hilltops or on terraces near streams (McCary 1957:91). They also gathered in camps in a variety of geographic settings for specialized activities such as collecting lithic materials or seasonally available foods. More diverse tools used for collecting foods were incorporated into the hunting tool assemblages used by the earlier, more nomadic, hunters.

Diversity characterizes the lifestyles of the Middle Archaic period. Hunting remained a crucial means of surviving but foraging grew in importance. This gradual change and diversification were primarily the result of significant environmental changes.

By the dawn of the Middle Archaic, the climatic changes had considerably altered the environment. Forests and lush vegetation enveloped the once open spaces. Large grazing animals were replaced by smaller, forest-dwelling creatures. Seasons began to play an important role in the availability and choice of diet (Gardner 1986:53-54).

Seasonal variations in the plant and animal kingdoms forced the Archaic Indians to adopt different foci when obtaining food. Instead of the earlier emphasis on hunting, the Indians of the Middle Archaic spent more time foraging. The abundance of nuts, berries, herbs, and roots provided a wide range of nutritious food. The groups would still hunt deer, trap small animals, and fish to adequately feed everyone through the long winters. To forage efficiently for these types of food, they still had to migrate just as the Early Archaic people did.

Changes in hunting and foraging practices are reflected in the stone tools recovered from Middle Archaic sites throughout Virginia. As the emphasis changed from hunting to foraging, the tools and projectile points generally show less care and quality in material selection. Instead of the fine-grained cherts, lower grades of quartz and quartzite were used because they were more readily obtained. It has been noted at various small hunting camps that stone tools were now more quickly made and discarded. Hunting tool kits, with their wide range of specialized tools, were no longer present. The atlatl, a weighted spear thrower, was, however, developed during this period (Gardner 1986:57). Weights, called bannerstones, are also recovered from Middle Archaic sites. Hunting was by no means abandoned, more attention was now focused on gathering foods than in the past.

As Middle Archaic hunting tools became less specialized, the implements for preparing gathered plants and nuts were developed. Grinding stones, such as

the mortar and pestle, were extremely important to Native Americans. These allowed wild grains and nuts to be ground into meal for breads or winter storage.

The Middle Archaic was a period of relative stability for Native Americans. The environment was changing, but very slowly. The small groups had time for endeavors other than obtaining food because the environment had settled into predictable seasons. Certain foods could now be anticipated at different times throughout the year.

By the Late Archaic, the environment became increasingly hot and dry. This generated a shift once again in the prime locations for foraging or hunting. There is a more noticeable occupation of sites situated along floodplains or hills. This is not to say areas in between were no longer used, they were just visited for shorter lengths of time as the Late Archaic sub-period progressed (Gardner 1986:59). The small interior subsistence camps now began to supply the larger floodplain base camps with food and supplies for the lean winter months.

The Late Archaic sub-period is also characterized by the advent of stone bowls. The bowls were carved from steatite, talc, soapstone, and sometimes sandstone. These were the first vessels in which food could be cooked directly over a fire. Prior to these bowls, stones were heated and dropped into hide or fibre baskets to slowly cook food (Gardner 1986:60). Platform pipes for smoking the native tobacco (Nicotiana rustica) were also carved from these stones for ceremonial use (McCary 1957:91).

Some archeologists look upon these stone bowls as the first indication that Native Americans consciously planned to return to a location. The bowls were too heavy to continually carry between foraging camps, so they were left at base camps and used upon their return. Stone bowls and a lower frequency of repeatedly occupied sites indicates something even more important about the Late Archaic sub-period. This points to a general trend toward the identification of specific groups of people with geographic areas. These groups then remained in a specific area (Gardner 1986:60). Thus, there is a beginning of the notion of tribal territories.

Woodland Period

The Woodland Period is typified by continuing cultural adaptations and the efficient exploitation of a variety of environments. Horticulture, pottery manufacture, and in some areas, mound building, are the hallmarks of this period. The Woodland Period is divided into three sub-periods: Early 1,300 B.C.

to 400 B.C.; Middle 400 B.C. to A.D. 900; and Late A.D. 900 to A.D. 1600 (Opperman et. al. 1987:11-13; Stephen Potter 1989: personal communication).

The appearance of pottery in the archeological record during this period suggests some degree of sedentism. Pottery is often associated with food production and is generally regarded as a non-portable item. Various agents or ingredients are blended with local clays to improve or "temper" the texture, to reduce shrinkage, to minimize warping or cracking, and to improve the clay's drying capability.

Prehistoric ceramics are classified into series by temper. In Virginia, there are three ceramic series associated with the Early Woodland sub-period. The first and earliest series employs steatite, commonly known as soapstone, as the tempering agent. These vessels are typically flat-bottomed with an ovoid shape. Small river pebbles were used to temper the second ceramic series. These straight-sided, round-bottomed, vessels are often decorated with the impressions of fabric or net. The vessels of both these series are hand-molded.

The third and final pottery series was tempered with sand. The first sand-temper vessels appeared between 750 B.C. and 500 B.C. The coiled bowls and jars exhibit characteristic concoidal bases. These vessels were formed by rolling clay into long strips and coiling these strips into the desired shape. The vessel is smoothed using a stone "anvil" on the interior and a wooden paddle on the exterior to press the coils together. The paddle was covered with a cord or fabric to prevent the clay from sticking. The cord or fabric-marking process is also believed to increase the vessels ability to retain heat during cooking (Gardner 1986:66).

The Early Woodland Indians hunted game using darts tipped with rhyolite, quartz, and quartzite projectile points. Hunting parties tracked game and butchered it at small temporary camps. The meat was then brought back to the main base camp where it was either prepared for immediate consumption or dried for storage.

The continued combination of hunting and foraging may well have generated a division of labor along gender lines. The most effective hunters physically were men. Women, who were tied to the base camp because of infants, were more effective gatherers of plant life in the camp area. Remaining near home also may have enabled the women to begin the intentional cultivation of wild plants.

The Middle Woodland sub-period was similar to the preceding period. However, it is characterized by stone-covered burial mounds. Burial mounds of this type are located primarily in the western portion of Virginia. Tombs on the western Piedmont and Shenandoah Valley form the eastern edge of the Ohio Mound complex. These mounds allude to a social ranking system heretofore unknown.

The development of an increasingly complex stratified society was occurring simultaneously across the country during this time. The permanent base camps evolved into hamlets and small villages. There were many cultural advances during this period including the establishment of extensive trade networks (Gardner 1986:74).

The Middle Woodland population dispersed sometime circa A.D. 200. An environmental shift is thought to have been responsible for cultural changes. A general cooling trend apparently placed stress on the environment. A large population could no longer be supported and so the villages disbanded and returned to small familial farming, hunting, and foraging groups. As the village and hamlet populations dwindled, so too did the labor force which had formerly built the burial mounds and conducted trade expeditions (Gardner 1986:75).

Ceramics produced during the Middle Woodland sub-period are tempered with crushed rock in the Shenandoah Valley area. In the Potomac and Rappahannock river valleys and below the fall line, the ceramics are tempered with crushed shell (Stephen Potter 1989: personal communication). Net and cord-marked decorations remained popular. However, these designs were gradually displaced by fabric-impressed patterns (Gardner 1986:74).

The Late Woodland sub-period witnessed the return of the larger villages and an overall termination of the small, isolated, family subsistence units. Agriculture is credited with this resumption of village life. The Indians cultivated corn, beans, and squash, as well as tending wild plants to insure an adequate harvest. The yield obtained at each harvest was meager when compared to modern standards. This was partially due to the manner of cultivation. Sharpened digging sticks would be used to break large soil clumps, and seeds were planted in small mounds several feet apart. The types of seeds used did not consistently produce large and numerous fruit or kernels. The corn harvested was much smaller than todays crops. It was enough, however, to sustain a larger group of people than in the previous period.

While the practice of agriculture enabled a larger population to live together, it was still necessary to supplement food stores. Hunting parties periodically gathered to provide meat for consumption, as well as bone and hide

for tools and clothing. Obtaining meat became easier during the Middle Woodland due to the adoption of the bow and arrow (Potter 1990:personal communication). Instead of creating projectile points which fit only spears, smaller light-weight, triangular points designed for arrow shafts were made.

More effective methods of food procurement produced a commensurate increase in population size. This increasing strain on the environment made it more difficult to obtain plants and animals. In response to diminishing local resources, people migrated, establishing hamlets where food and land was available. These small hamlets evolved into fortified villages sometime after A.D. 1400.

Yet another climatic change resulted in cooler, drier weather. This was not conducive to high yielding crops. Wide-ranging hunting was again necessary to support the population. This is demonstrated by the reappearance of hunting tool kits at Late Woodland camp sites (Gardner 1986:89).

War was the inevitable result of increasing Woodland population density in a limited resource area. Fighting between the fortified villages steadily increased over the next several centuries. The arrival of European traders in the seventeenth century served as an additional catalyst for the on-going warfare. The European debut inaugurated what is known as the Historic Contact Period. This terminated not only the prehistoric era in North America, but eventually the lives of the Native Americans themselves.

Historic Contact Period

At the beginning of the Historic Contact period, Virginia was inhabited by many different Indian tribes. These tribes belonged to one of three linguistic groups: Algonquians, Iroquoians, and Siouans. The group occupying the Northern Virginia Piedmont area were the Siouan-speaking Manahoac Indians (McCary 1957:8).

The Manahoac Indians were composed of seven smaller tribes. Approximately 1,500 Indians belonging to the "Hassinnungas, Outponcas, Shackaconias, Stegarakes, Tauxsnitanias, Tegoneases, and Whonketyaes" that were described by Capt. John Smith in his travels through Virginia during the early seventeenth century (McCary 1957:9). Europeans made constant written observations about all aspects of Native American life during this period of exploration.

These Indian groups settled together in villages near the headwaters of the Rappahannock River and hunted widely within the present Prince William area. The fields near their villages were cultivated in garden plots, with corn, beans, squash, and other vegetables tended by women and children. Tobacco was also grown for various ceremonial and religious rites.

The cultivated crops required supplementation as they had in the past. Women gathered wild berries, grains, and nuts during various seasons. Several times a year, men would travel to the interior areas to hunt. Others would set snares for smaller animals. Fish and fresh-water mussels also provided a constant source of protein. The northern Virginia Piedmont interior contained a diverse mixture of wetlands and uplands which provided a dependable source of game animals for the local population (Fisher 1983:3).

All that Native Americans had come to view as dependable was soon changed by the arrival of Europeans. Although the Europeans made overtures of friendship, trading with various Native American groups, the primary reason they came to North America was for profit. Trade in furs, as well as other raw materials from North America, provided a rapid means for Europeans to accumulate wealth. On a much smaller scale, it enabled the Indians to receive the European goods they desired.

The fur traders understood that their wealth increased proportionately with the amount of pelts they had to sell in Europe. Guns and ammunition were the most effective means by which to speed the process. Firearms, while terrifying, were greatly coveted among the Native Americans. The Indians competed with each other for the favor of European traders. This attitude soon drastically changed, however, in response to the increasingly despotic demeanor of the Europeans in Virginia.

Native Americans apparently had the same variety of diseases that occur naturally wherever people live in concentrated groups. Dysentery, congenital and endemic syphilis, tuberculosis, herpes, and arthritis among other illnesses, were present in the New World (Robert Mann 1989:personal communication). With the exception of arthritis, these diseases probably first evolved when Indian groups began living in villages. The immunities developed against these local disease strains afforded little protection against the different virulent disease strains brought from Europe.

Small pox was especially deadly. It is estimated that the Native American population in Virginia dropped from approximately 18,000 to 2,000 individuals between the beginning of the seventeenth century and the first quarter of the

eighteenth century (McCary 1957:78). Diseases decimated the Indian villages. Smaller groups were forced together, perpetuating the vicious cycle. Simultaneously, the number of European settlers was steadily growing.

Native Americans watched their way of life rapidly disappear in the wake of white culture and disease. As the Indians began attacking white settlements, word spread throughout the colony that punishment must be swiftly meted out. The settlers had quickly learned that violent and decisive actions were understood and respected by the Indians.

These attacks and reprisals served to encourage the slowly fermenting idea that Indians should simply be eradicated. Missionaries had been largely unsuccessful in attempts to convert and thereby control the Indians. White colonists felt they had fulfilled their "Christian duty" through attempts to "civilize the heathens" and had been rebuked. The only practical solution was to erase the existing threat embodied by Indian men, women, and children.

By 1646, European forces had burned towns and crops in the Tidewater region of Virginia, effectively subduing the small group of remaining Indians (McCary 1957: 80). The Indians agreed to vacate a large portion of their land in Virginia, as well as pay yearly tribute to the English king. Subsequent raids by the settlers succeeded in moving the Indians farther from land desired by tobacco-growing colonists. The last documented Native American presence in the Piedmont area of northern Virginia was circa 1675 (Michael Johnson 1989:personal communication).

Analysis

The prehistoric artifacts from the archeological excavations and surface collections at Pohoke, site 44PW335, and Portici, site 44PW348, sorted by material and function. Lithic (stone) artifacts and pottery were the two categories present at these sites. The lithic assemblage was then divided into diagnostic (objects with an identifiable function or of an identifiable type) and non-diagnostic objects. Diagnostic artifacts were further separated by function into projectile points and tools (Table 16.2). As the term is used in this report, projectile points include the following: arrow points, the armament of javelins or throwing spears, and spear points (Ritchie 1971:4).

Projectile points are traditionally classified by morphological features. Specific morphological characteristics are associated with specific topographic areas and prehistoric sub-periods. This association is largely based on the premise that

Table 16.2 PREHISTORIC LITHIC MATERIAL FROM POHOKE AND PORTICI

CATEGORY	GROUP	POHOKE	PORTICI
PROJECTILE POINTS	HALIFAX	4	1
	HALIFAX, EARRED	0	1
	HALIFAX, REWORKED	1	0
	HALIFAX FRAGMENTS	0	2
	HALIFAX-LIKE	0	2
	HOLMES	1	0
	SAVANNAH RIVER/HOLMES	1	0
	ROSSVILE	1	0
	MEROM	0	1
	STRAIGHT STEMMED, SIDE NOTCHED FRAGMENT	1	0
	BASAL FRAGMENT REWORKED	0	1
	MEDIAL SECTION FRAGMENT	1	1
	TIP FRAGMENTS	2	0
	UNID. POINT FRAGMENTS	0	4
	TOTAL	12	13
TOOLS	HAMMERSTONE	0	1
	METATE	0	1
	BIFACIAL FLAKE SCRAPERS	0	3
	BIFACIAL SCRAPER	0	1
	UTILIZED FLAKE SCRAPER	0	1
	UNIFACIAL SCRAPERS	2	0
	THUMBNAIL SCRAPER FRAGMENTS	3	0
	BIFACIAL CHOPPING TOOL	1	0
	BIFACIAL TOOL FRAGMENTS	3	0
	BIFACIAL TOOL FRAGMENT, REWORKED	1	0
	COBBLE TOOL	1	0
	SCRAPING/BURNISHING GROUND STONE TOOL	1	0
	GROUND STONE TOOLS	3	0
	CORES	0	3
	EXHAUSTED CORES	0	3
	UTILIZED EXHAUSTED CORES	6	0
	PREFORM FRAGMENT	1	0
	RETOUCHED FLAKE	1	0
	TOTAL	23	13
LITHIC DEBRIS	SHATTER	3	7
	DEBITAGE	41	53
	FLAKES	20	15
	CHUNKS	12	3
	FIRE-CRACKED ROCKS	9	0
	TOTAL	85	78
TOTAL		120	104

H. Bonnette

M. Richardson

prehistoric humans worked from a "cultural compulsion" which prompted conformity in establishing lithic "design" standards for particular times and places (Ritchie 1971:8).

Projectile points and tools were next examined for evidence of reworking. Reworking entails pressure flaking along the cutting edge to resharpen or reshape. This process results in unusable lithic debris called debitage. Unfortunately, reworking projectile points often obscures many of the original characteristics, rendering the points unidentifiable.

Pottery fragments were sorted by temper, surface treatment, and vessel shape. Pottery is only associated with the Woodland sub-periods in the Virginia Piedmont. Pottery can therefore, often provide a more precise temporal association than projectile points. So few pottery fragments were recovered, however, that any analysis beyond pure descriptive identification was precluded.

Pohoke

The artifacts recovered from the prehistoric component of Pohoke, site 44PW335, suggest this camp site was occupied during three separate sub-periods (Table 15.2). The first habitation occurred during the Late Archaic (3,500 B.C.-1,300 B.C.), the second occurred in the Middle Woodland (400 B.C.- A.D 1600), and again in the Late Woodland sub-period (A.D.900-A.D.1600). The occupations were apparently short-term and probably cyclic in nature. That is, while three sub-periods are represented, numerous occupations within each sub-period, may have occurred.

The projectile points (Figure 85) and the scraping and chopping tools, suggest this low ridge in the Piedmont was hunted for interior upland game. Hafted to dart shafts and propelled by spear-throwers, projectile points would have been used to bring down game such as elk and deer. Stone knives and scrapers stripped animal hides and removed residual fat in preparation for clothing. Meat was cut from the animal carcass with chopping tools. Lithic debris generated by the creation and resharpening or repairing of these tools is also present.

Several pieces of fire-cracked rock were also recovered. These are probably remnants of heating or cooking fires. Indians typically arranged rings of stone around their fires to contain the flames. The high temperatures crack the stones, leaving sharp, and often discolored irregular surfaces. In addition to providing warmth and protection, the fires were used to cook and smoke any game brought to camp.

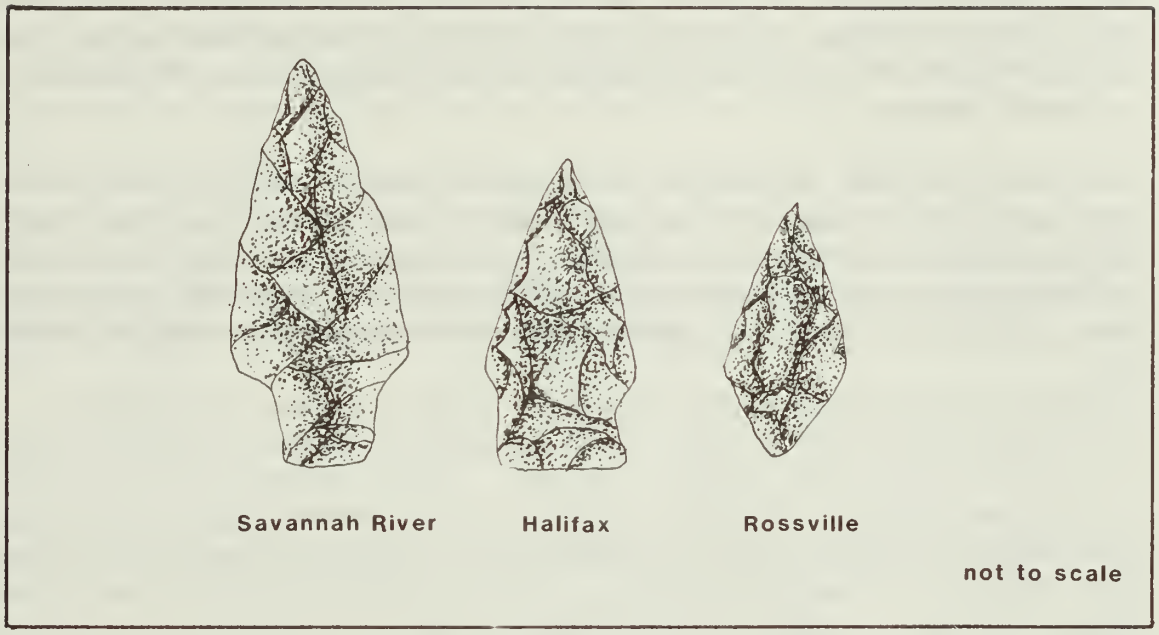


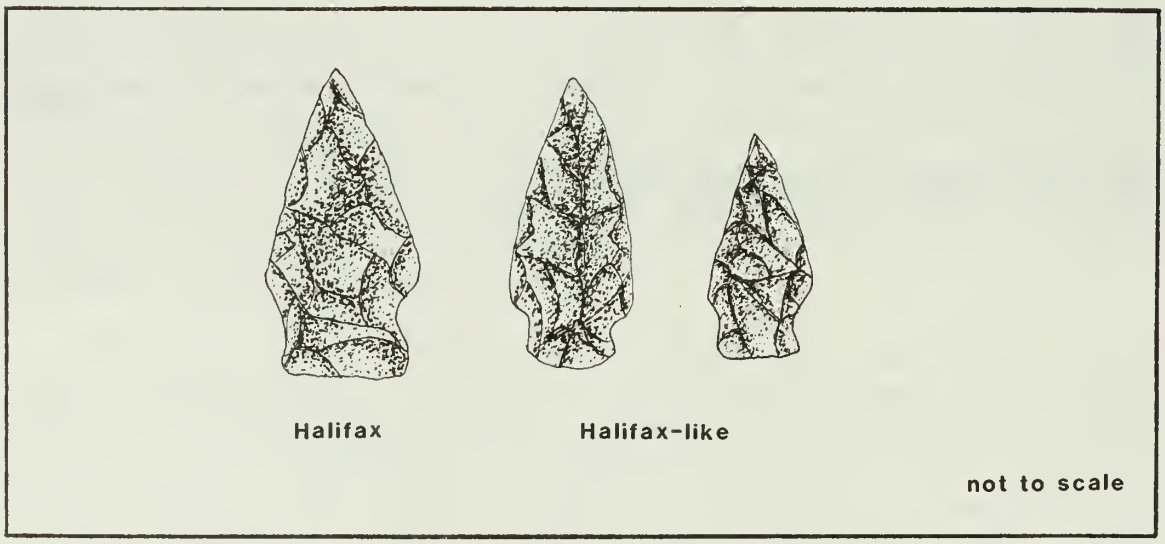
Figure 85 Projectile points recovered at Pohoke.

One fragment of cord-marked pottery and three unidentifiable pottery fragments were recovered from the bottom of the eighteenth-century cellar hole at Pohoke. These four Late Woodland fragments were apparently deposited in this historic context by siltation episodes following the abandonment and dismantling of the structure. The open cellar hole was probably exposed to the elements for some time and erosion of the surrounding ground surface appears substantial.

Portici

The prehistoric artifacts recovered from Portici, site 44PW348, suggest a single Native American occupation during the Late Archaic sub-period (see Table 15.2). The date range, 3,500 B.C. to 1,300 B.C., was suggested by five Late Archaic Halifax or Halifax-like projectile points (Figure 86) and the absence of prehistoric ceramics.

This site also apparently served as an interior camp. The seasonal inhabitants of this camp were probably hunting game to provision their larger, more permanent base camps. Projectile points, scrapers, and other hunting and butchering type tools were recovered. Lithic debris, such as flakes, chunks, and cores, indicate that tools were both fashioned and sharpened or repaired at this site.



J. Hernigle

Figure 86 Projectile points recovered at Portici.

Summary

The Piedmont was a prime hunting area for prehistoric Native Americans. The open ranges and wooded areas supported a wide variety of wild life. This in turn, supported the prehistoric human population. The prehistoric components at both Pohoke and Portici were temporary interior campsites established to exploit the elk, deer, bear, and various smaller animals on a seasonal basis.

During the Late Archaic and again in the Middle and Late Woodland sub-periods, small hunting parties were dispatched to obtain essential meat and hides. These people most likely brought their hunting equipment as well as other implements with them. Projectile points, scrapers, and knives were needed to process the game into transportable food, clothing, and tools.

These two sites were probably occupied repeatedly during the Late Archaic, Middle, and Late Woodland sub-periods. This cannot be determined through the identification of artifacts alone. Had the artifacts been recovered in an undisturbed context, carbon 14 dates might distinguish successive occupations. Unfortunately, more than 200 years of cultivation and erosion at Pohoke and Portici have effectively erased any shallow sub-surface features which might have resulted from these brief occupations. All prehistoric cultural material is now confined to the historic and modern plowzone strata. These sites do remain important from a regional perspective, however. Establishing the location and the dates of occupation for prehistoric sites provides valuable demographic information for these first inhabitants of Virginia.

PART III

CONCLUSIONS

17 IN CONCLUSION

The suspected locations of specific plantation dwellings at sites 44PW335 and 44PW348 were first identified through historic documentation and archeological survey, then confirmed through excavations. What was initially thought to be a nineteenth-century field slave quarters, Structure 1 at Pohoke, was later interpreted as housing a higher-ranking slave. A skilled craftsman who practiced carpentry and possibly blacksmithing is thought to have occupied the structure.

Remnants of a second building associated with both the eighteenth- and nineteenth-century plantation complexes were also discovered. Little remained of Structure 2 which is believed to represent the original eighteenth-century dwelling house at Pohoke. Following its abandonment for Portici mansion house in the 1820s, the cellar hole of this older structure was used as a refuse pit by the occupants of the nearby Portici slave quarter, Structure 1.

Excavations at the planter's Portici mansion house, site 44PW348, revealed a cellar slave quarters beneath the vernacular Georgian-style structure. Domestic slaves are thought to have resided there. Unfortunately, most of the material culture associated with the planter, and some of the domestic slave assemblage, was intentionally removed from the premises. The planter family and their domestic servants apparently removed their possessions when they withdrew to safer haven prior to the First Battle of Manassas. Time and the scope of the project, did not permit a search for refuse middens associated with these occupations. Portions of the missing planter material culture were subsequently replaced with vestiges of the brief military occupation.

The archeological record of material culture and living conditions can reveal social and economic information concerning plantation inhabitants. This is often referred to as "status patterning." Status itself is generally defined as a dynamic collection of rights and duties used to symbolize a person's position in relation to other individuals and in particular social situations (Orser 1990:133).

Three types of status patterning have evolved in the archeological study of plantations. These are "white dominance patterning, "hierarchical patterning," and "wealth/poverty patterning." The first is suggested by similarities in architecture, food, and general artifact assemblages associated with planters, overseers, and slaves on a single plantation. Differences between these same groups reflected by the same categories, constitute hierarchical patterning. Finally, when the assemblage associated with the planter differs dramatically from the material culture of the other two groups it is considered a wealth/poverty pattern (Otto 1984:160-161). These pattern classifications allow comparisons between the

socially stratified residents of a single plantation. They also engender a method of comparison between different plantation complexes.

Hierarchical patterning is demonstrated through the architectural remains at Pohoke and Portici. The Structure 1 slave quarters was of a more temporary nature. It was a sturdily constructed frame dwelling measuring approximately 12-by-12 feet. A single stone chimney flanked the exterior east wall. The structure rested on four stone corner piers. There were windows, a door with a lock, a wooden floor, and an assortment of furnishings.

Portici's frame mansion house, with its massive exterior-end, brick, parappetted chimneys, and full English cellar is a model of permanence. The sandstone foundation, excluding additions, measures approximately 37 feet square. Architectural artifacts and house hardware provided data regarding structural detail and maintenance programs. Little remained archeologically which alluded to the furnishings within this dwelling. Most of these possessions had been removed by the family. Estate inventories however, provided limited supplemental information.

Living spaces, or rooms, within these dwellings also reflect hierarchical patterning. The mansion house provided at least twelve individual rooms, an attic, and two full passage ways. The domestic slaves used at least one of the rooms, and possibly four, in the cellar. Structure 1 was a single room which may have had a loft. Its detached placement in the plantation complex, however, may suggest somewhat more independent living conditions for its occupants.

Lamps and lanterns illuminated all these structures. At least one kerosene lamp brightened the cellar slave quarters. Camphene lamps and candles lit the planter's dwelling. Fragments of hall and wall lanterns were recovered at Structure 1. Cast iron, Franklin-type stoves were used to heat both the mansion house and Structure 1. The similarity of these objects reflects a white dominance-type of patterning within the hierarchically patterned dwellings.

Ceramic fragments recovered from the two sites allude to a hierarchical patterning. High frequencies of holloware vessels, undecorated, and refined tablewares were associated with the slave assemblages at both sites. This proportion of undecorated vessels suggests they were purchased specifically for or by slaves. Decorated wares at Structure 1 display heterogeneous designs and patterns which suggest they were odd-lots or individually purchased. Those associated with the domestic slaves exhibit primarily homogeneous decorations. These matching patterns may indicate transference from the planter household.

Ceramics recovered from the Structure 2 refuse pit generally reflected the hollow form and decorative patterns found at Structure 1. The most notable

exceptions, however, are the high numbers of African colonoware vessels and eighteenth-century wares. This may reflect a period of transition and upward mobility for the slaves and for the plantation.

Dietary remains reflect a general hierarchical patterning as well. Shattered and split bone dominate the faunal assemblages at Pohoke's Structure 1 and the associated refuse pit. These fragments in conjunction with the high frequency of holloware vessels suggests that stews, soups, and other one-pot meals were consumed. Swine, cattle, sheep, and chicken formed the dietary mainstay. Apparently, very little supplemental exploitation of the local environment was necessary for the slaves.

Certain aspects of the cellar quarter faunal remains more closely resemble those associated with higher status fare. While evidence of one-pot meals was recovered, whole bones were also present. These unbroken elements suggest higher quality roasted or fried meats were consumed. Domestic meat, fish, and poultry egg shells dominate the collection.

No faunal remains associated with the planter occupation were recovered. It is suspected that this pattern would probably conform to planter diet patterns established at other contemporary plantations.

Cooking and dining implements and utensils recovered from the two sites differed only in the presence of baking implements and brass utensils at the mansion house. Bone and wood-handled table knives and three-tined forks were associated with all occupations. This pattern appears to be one of white dominance. The removal of the planter tableware by the family has undoubtedly influenced this patterning.

Personal possessions reflect more of a white dominance patterning. Writing implements including slate tablets and slate pencils recovered from the Structure 1 slave quarters and the cellar quarters imply that slaves at both sites were literate to some degree. A graphite pencil found in Structure 1 may be associated with the occupants' carpentry activities.

Jewelry, ornamental glass, hand mirrors, liquor and perfume bottles, clay tobacco pipes, and coins found at Structure 1 reflect a higher status within the slave category. These objects were considered luxury items which the slaves purchased or bartered for with local merchants. Occasionally they may represent gifts or rewards from the planter. The number and variety of luxury items contained at this slave quarter suggest the occupants were either industrious and self-motivated, or well thought of by their owners.

Aspects of African culture may be represented in the colonoware ceramic vessels and tobacco pipes, blue beads, and water-worn ceramic gaming pieces. Faceted blue glass beads are becoming a hallmark of nineteenth-century slave sites in the American South (Singleton 1989; Otto 1984). Water-worn, geometrical-shaped ceramic gaming pieces may also mark the presence of nineteenth-century African-Americans. They have been recovered from multiple nineteenth-century American and Caribbean slave contexts, and at least one nineteenth-century site owned and occupied by a free-black family. Similar water-worn ceramic markers are still used in contemporary Caribbean games (Douglas Armstrong 1989:personal communication). Further research is needed concerning these recreational items.

Both the general patterns and status patterns expressed at Pohoke and Portici are fundamentally similar to those expressed by other plantations in the American South. The variances expressed may simply reflect idiosyncrasies of this particular plantation community. The intentional removal of the planter and much of the domestic slave cultural material has slightly distorted the archeological patterns of material culture.

Patterns created by the short-term military occupation of the plantation are primarily reflected in dietary remains. These demonstrate a substantial exploitation of the local environment to supplement meager resources. Few objects associated with the First Battle of Manassas or the use of Portici mansion house as a Confederate field hospital were present in the archeological record.

Portici was essentially removed from the maelstrom of battle. A high frequency of projectiles and firearms was, therefore, not anticipated. The scarcity of medical artifacts in the archeological record is also not surprising. Medical supplies were at a premium during the American Civil War. All equipment was carefully managed by practicing physicians.

Life was generally harsh and demanding for most residents of the eighteenth and nineteenth centuries. Life was good, or at least better, for the planters who owned both the land and their slaves who worked it. Life was something less for these enslaved workers but it did include some amenities and pleasures. Life for those individuals drawn into the American Civil War to fight for their respective cultures and beliefs was by far the most severe and harsh existence of the period.

The history and archeology of Portici plantation demonstrate that it conformed to the plantation system developed as an agricultural-based economic institution. This system in turn, fostered the development of an entire culture, incorporating the diverse classes of people required to operate them. The material culture of Portici demonstrates the individuality which characterizes each plantation complex as a separate community in and of itself.

18 NATIONAL REGISTER ELIGIBILITY

Manassas National Battlefield Park acquired the Wheeler Tract in 1985 under the term of the Battlefield Expansion Act. An extant house and farm and the sites of two middling plantation complexes were included with this acreage.

A small tenant farmstead established in the early eighteenth century grew into a middling tobacco plantation called Pohoke. Over the ensuing years it was transformed into a prosperous, middling multiple-grain plantation complex known as Portici. Reaching its zenith by the mid-nineteenth century, Portici was soon reduced to a small plantation. The American Civil War reduced it to ashes. A modest frame structure and a modest farm, titled Portici II, took its place by the 1870s. This house was also consumed by flames and Portici III, the Lewis house, rose above the ruins of its predecessor. This fourth and final dwelling which directly evolved from the early eighteenth-century occupation of the property is the extant farm house at site 44PW345.

While not of remarkable design or great architectural significance, Portici III culminates the 226-year life-cycle of one family and the land they owned. The Lewis House is the last link in an agricultural and social chain that began with Pohoke. The preceding chapters have demonstrated through historical documentation and archeological work, that site 44PW335, Pohoke, and site 44PW348, Portici, satisfy National Register eligibility requirements under Criterion D (see Appendix D). Both sites have demonstrated their potential to yield important historic information. Site 44PW345, the Lewis House, appears, through very provisional work, to contain a wealth of historic information regarding both Portici II and Portici III. This information appears to equal, if not exceed, the demonstrated potential of the two earliest plantation sites.

Preliminary work also documents the eligibility of Pohoke, Portici, and the Lewis House, for nomination to the National Register of Historic Places on a Local Level. In this instance, "local" refers to the geographical and cultural area of Virginia known as the Northern Piedmont. Collectively, these three sites, with all their associated ancillary sites (44PW336, 44PW337, 44PW452, and 44PW334) document the agricultural and social history of the area (Figure 87). Together, they graphically depict the evolution of lifeways and patterns of development in a frontier community plantation complex.

The remarkable controls and data base provided by a property where members of the same family were in residence for 226 years present a valuable and rare opportunity. The evolving historic Piedmont Virginia landscape is portrayed through the lives and land of one agrarian family from earliest tobacco farm tenancy through the impact of the American Civil War and the ensuing recovery and reconstruction.

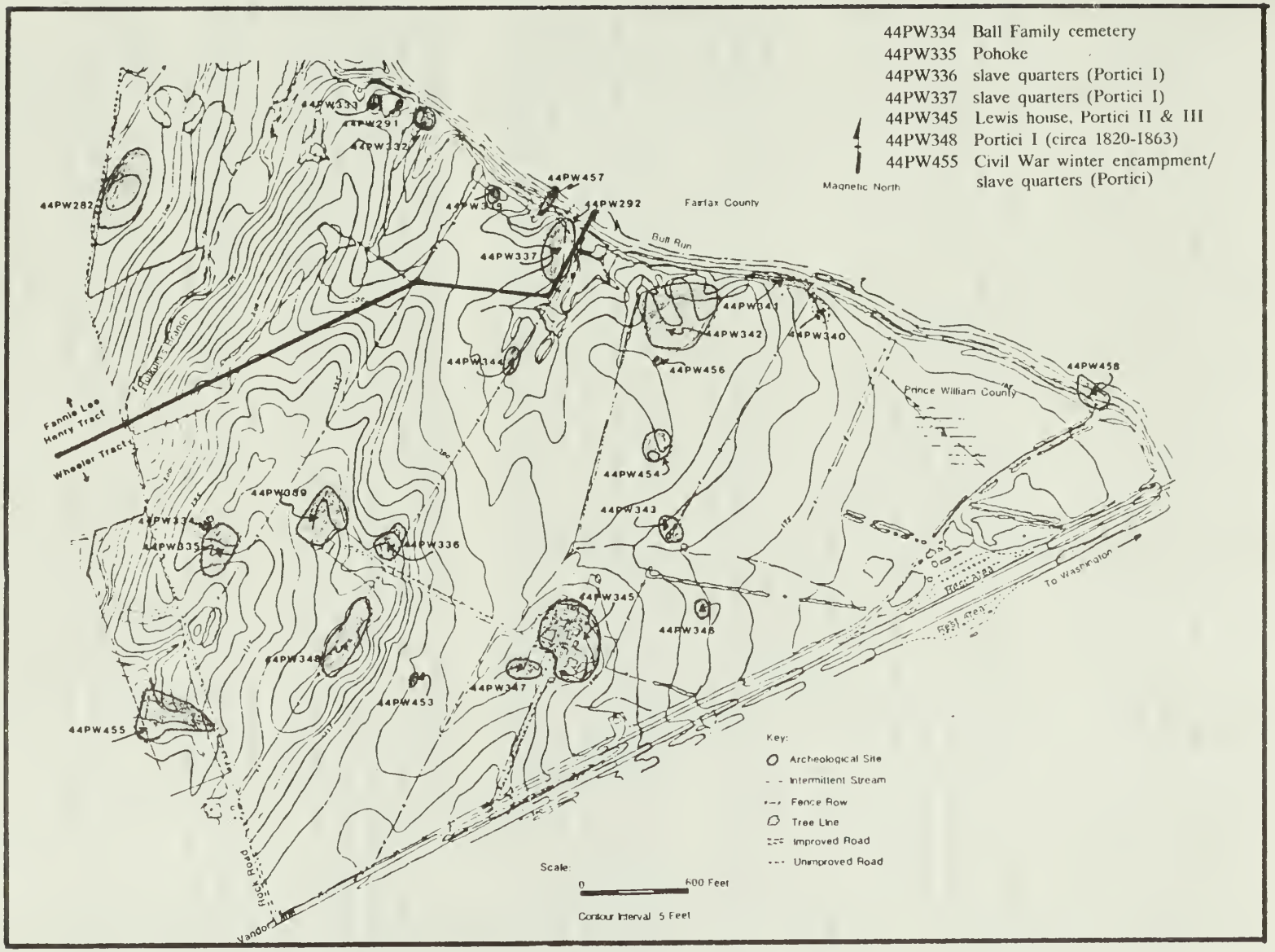


Figure 87 Wheeler Tract sites eligible for nomination to the National Register of Historic Places.

APPENDICES

APPENDIX A

Personal Property Tax Records
1799 - 1861

PARTIAL LISTING OF PERSONAL PROPERTY TAX RECORDS 1799-1861

YEAR	NAME	FREE BLACKS	SLAVES	HORSES AND MULES	CATTLE, HOGS, SHEEP
1799	SPENCER BALL		20	13	
1800	SPENCER BALL		19	12	
1801^					
1802	BETTY BALL		12	3	
1803	BETTY BALL		4	1	
1804^					
1805	BETTY BALL		8	2	
1806	SPENCER BALL		16	15	
1806	BETTY BALL		8	2	
1807	SPENCER BALL		17	15	
1807	BETTY BALL		4	3	
1808^					
1809	SPENCER BALL		12	18	
1809	BETTY BALL		5	3	
1810	SPENCER BALL		11	18	
1810	BETTY BALL		5	3	
1811	SPENCER BALL		11	21	
1811	BETTY BALL		5	3	
1812	SPENCER BALL		13	22	
1812	BETTY BALL		5	4	
1813	SPENCER BALL		11	13	
1814	SPENCER BALL		5	10	
1815	SPENCER BALL		8	11	28
1815	BETTY BALL		8	3	10
1816	SPENCER BALL		4	16	
1816	BETTY BALL		5	3	
1817	SPENCER BALL		8	11	
1817	BETTY BALL		7	2	
1818^					
1819	SPENCER BALL		15	11	
1819	BETTY BALL		8	4	
1820	SPENCER BALL		16	16	
1820	BETTY BALL		8	4	
1821	SPENCER BALL		22	18	
1821	BETTY BALL		3	1	
1822	SPENCER BALL		20	21	
1822	BETTY BALL		10	4	
1823-1828^					
1829	SPENCER BALL		24	21	
1830-1834 ^					
1835	ALFRED BALL		16	18	
1836	ALFRED BALL		16	18	
1837	ALFRED BALL		14	16	
1838	ALFRED BALL		12	12	
1839	ALFRED BALL		12	12	
1840-1841^					
1842	ALFRED BALL		3	12	
1843	ALFRED BALL		14	16	
1844	ALFRED BALL		14	18	
1845	ALFRED BALL		14	19	
1846	ALFRED BALL		15	17	
1847	ALFRED BALL		14	20	
1848^					
1849	ALFRED BALL		15	9	
1850	ALFRED BALL		11	13	
1851	ALFRED BALL		13	14	
1852	ALFRED BALL	1	22	10	100
1853	ALFRED BALL		26*	11	993
1854	SARAH BALL		4	3	
1855	SARAH BALL		4	3	
1856	FRANK LEWIS	1	8	3	21
1857	FRANK LEWIS	1	9	9	106
1858	FRANK LEWIS	1	12	8	70
1859	FRANK LEWIS	1	13	7	79
1860	FRANK LEWIS	1	9	9	111
1861	FRANK LEWIS	1	11	7	106

^ MISSING
* ALFRED BALL ESTATE DISTRIBUTES 50 SLAVES TO HIS HEIRS IN 1853.

APPENDIX B

Confederate Forces at Portici

by

John H. Imlay

The Army of the Potomac and the Army of the Shenandoah were comprised of more than 21,000 infantry, 46 pieces of artillery, and approximately 500 calvary. These units traversed, bivouacked, fought, suffered and died on the lands of Portici plantation during and following the Battle of First Manassas.

The Battle of First Manassas proved to be a training ground for ensuing engagements fought throughout the Civil War. The "rebel yell" was heard for the first time during this battle. The signal flag system was first utilized at this time. Following the battle an attempt was also made to standardize uniforms.

The following figures represent the approximate number of Confederate units which traversed Portici plantation during the Battle of First Manassas.

Army of the Potomac	
1st Corps - Brig. Gen. P.G.T. Beauregard	
Infantry	12,249
Artillery	378
Cavalry	approximately 500
Total Officers and men	13,127
Army of the Shenandoah	
2nd Corps - Brig. Gen. Joseph E. Johnston	
Infantry	8,023
Artillery	278
Cavalry	334
Total Officers and men	8,635
Combined Total Officers and men	21,762

Analysis of Confederate Forces at First Manassas

Army:

Army of the Potomac -- Brig. Gen. P.G.T Beauregard
Army of the Shenandoah -- Brig. Gen. Joseph E. Johnston

Corps:

Army of the Potomac was later designated the 1st Corps.
Army of the Shenandoah was known as the 2nd Corps.

Division:

Three to four brigades, usually commanded by a major general. Term not used by Confederate forces at First Manassas.

Brigade:

Several Regiments.
Army of the Potomac - seven numbered plus four unattached units; (Holmes, Hampton, 7th Louisiana, and 8th Louisiana).
Army of the Shenandoah - four brigades.

Regiment:

A full regiment included ten companies. Regiments were seldom full due to illness, absenteeism, etc.
Army of the Potomac - 23 regiments which included; 1st Brigade, two; 2nd Brigade, three; 5th Brigade, five; 6th Brigade, two; 7th Brigade, two; Holmes, two.
Army of the Shenandoah - 16 regiments including: 1st Brigade, five; 2nd Brigade, two; 3rd Brigade, five; 4th Brigade, three; 1st Virginia Cavalary, one.

Battalion:

Approximately 400 in strength.

Squadron:

The equivalent of two companies.

Troop:

Synonymous with company, used with cavalry.

Company:

At full strength consisted of 100 men. This total included 98 enlisted men and three officers. The total number of companies engaged at First Manassas is pure conjecture. Most reports from commanding officers and casualty lists only mention regiments.

Cavalry:

The mounted arm of the military. The War of the Rebellion (1885) list included 1,702 officers and men. Approximately 500 participated in the First Battle.
Army of the Potomac - 30th Virginia, 676; Harrison's Battalion, two hundred and nine.
Army of the Shenandoah - 1st Virginia, 334. Independent companies, 583.

Infantry

Armies were divided into three combat arms; infantry, artillery and cavalry. The infantry, or foot soldiers, were the largest of these groups. It was upon the infantry that the strength of the arms was based. The tenacious fighting of these foot soldiers armed with musket, rifle-musket, rifle, and bayonet made the Confederate victory at First Manassas a reality.

The majority of the infantry was provided by state militia volunteers. This was also true of the other two combat arms. Consequently, these troops retained considerable variation in name, uniform, drill, armament and regulations. Militia volunteers were usually formed into companies by locality. When mustered into service these companies were formed into regiments. The company was the basic fighting unit of the infantry and the cavalry. The basic unit of the artillery was the battery.

In theory, a volunteer regiment was to include 10 companies. Each company muster included a captain, a first and a second lieutenant, four sergeants, four corporals, two musicians and 86 privates. The regimental staff commanding and serving the 1,096 men of the unit included one colonel, lieutenant-colonel, major, adjutant, quartermaster, surgeon, assistant surgeon, hospital steward, chaplain, and band.

Regiments were generally referred to by their number and state. Companies within a regiment were designated by letters. The senior captain's company was A. Company A had the honor of defending the right flank. The next ranking company was B and it defended the left flank.

None of the Confederate regiments participating in the First Battle of Manassas fought at full strength. Disease, casualties, desertions and a myriad of other difficulties depleted the ranks. Some regiments were reduced by as much as 40 percent.

Regiments generally did not fight as independent units. They were deployed with several others to form a brigade. Brigades assumed their commanders name. Eleven numbered brigades fought at First Manassas.

The foot soldier, as in most battles, played a major role at First Manassas. At 8 a.m. on July 21, 1861, the Confederates were warned of Brig. Gen. Irvin McDowell's approach. The Union army's attempt at a surprise attack was thwarted. A signal station on Signal Hill, eight miles distant, where the Federals chose to cross Bull Run, spotted the advancing troops. A message was sent through the new flag communication system to "...look out on your left. You are turned...."

Col. Nathan G. "Shank" Evans' 7th Brigade was guarding the Warrenton Turnpike at the approach to stone bridge. This brigade was the first to receive the signaled message. Four companies of Evans' brigade were left at the bridge. The rest of the brigade moved to the rear of the Confederate line on Matthews Hill. They, along with reingorcements, managed to stall two invading Union divisions for almost two hours. When the Confederate line broke they fled across the Warrenton Turnpike and up the north slope of Henry Hill. The Confederate artillery deployed there provided some protection.

Brig. Gen. Thomas J. Jackson waited with his five Virginia regiments just below the crest of Henry Hill. The remnants of Evans' scattered brigade together with the survivors of Gen. Barnard Bee and Col. Francis Bartow's brigades trailed back past Jacksons regiments. It was here that General Bee observed Jackson standing "...like a stone wall" and renamed both the General and his brigade. The retreating soldiers rallied behind "Stonewall" Jackson as the reformed lines of Union Gen. McDowell attacked. Charges and counter charges ensued with a frenzied violence. The majority of the action occurred around the Henry and Robinson houses.

The turning point of the battle occurred at 2:30 p.m. that afternoon when the Union Army made a deadly mistake. General McDowell deployed the artillery batteries of Capts. James B. Ricketts and Charles Griffin to positions in front of the Henry house. The Union batteries had not been in position very long when Confederate Col. Charles Cummings' 33rd Virginia appeared. Cummings' 400 men were mistaken for Federal reinforcements. They advanced unmolested to within 70 yards of two of Griffin's guns where they unleashed a volley of musket fire. The Union guns changed hands three times during the fighting which followed.

At 4:00 p.m. two more Confederate brigades arrived. These were under the command of Col. Jubal A. Early and Brig. Gen. E. Kirby Smith. With their

timely intervention the Union army began to disintegrate. Gen. McDowell's forces were driven from the battlefield. The Federals made a disorganized retreat across Bull Run. With the flight of the Union army the battle was ended. Weary, hungry, content with the victory as well as the capture of numerous prisoners, ammunition, cannons, rifle-muskets, and supplies, the Confederates did not pursue the Union troops.

Army of the Potomac
1st Corps Infantry
Brigadier General P.G.T. Beauregard

Brigade	Brigade Commander	Unit Commander	Unit Name	Remarks
1st	Brig. Gen. M.L. Bonham	Col. Kershaw	2nd South Carolina	Except for 2cd and 8th S.C., all remained at Mitchells Ford.
		Col. Cash	8th South Carolina	
		Col. Williams	3rd South Carolina	
		Col. Bacon	7th South Carolina	
		Col. Kirkland	11th North Carolina	
2nd	Brig. Gen. R.S. Ewell	Col. Rodes	5th Alabama	
		Col. Seibel	6th Alabama	
		Col. Seymour	6th Louisiana	
3rd	Brig. Gen. D.R. Jones	Col. Featherson	17th Mississippi	remained at McLean's Ford
		Col. Burt	18th Mississippi	
		Col. Jenkins	5th South Carolina	
4th	Brig. Gen. J. Longstreet	Col. Moore	1st Virginia	remained at Blackburn's Ford
		Col. Garland	11th Virginia	
		Col. Corse	17th Virginia	
		Col. Hairston	24th Virginia	
		Col. McCrae	5th North Carolina	
5th	Col. P. St. George Cocke	Col. Hunton	8th Virginia	7 companies
		Col. Withers	18th Virginia	
		Lt. Col. Strange	19th Virginia	dug rifle-pits at Lewis Ford
		Col. Preston	29th Virginia	
		Col. W. Smith	49th Virginia	3 companies
6th	Col. Jubal A. Early	Col. Kemper	7th Virginia	
		Col. Barksdale	13th Mississippi	

Army of the Potomac
1st Corps Infantry
Brig. Gen. P.G.T. Beauregard

Brigade	Brigade Commander	Unit Commander	Unit Name	Remarks
7th	Brig. Gen. Nathan G. Evans	Col. Sloan Maj. Wheat	4th South Carolina 1st Spec. Btn. Louisiana Inf.	 "Wheats Tigers"
Holmes	Gen. T.H. Holmes	Col. Fagan Col. Bate	1st Arkansas 2nd Tennessee	
Un-brigade		Col. Hays Col. Kelly Col. Wade Hampton	7th Louisiana 8th Louisiana Hampton's Legion	 South Carolina

Army of the Potomac
1st Corps Infantry
Brigadier General P.G.T. Beauregard

Command	Officers & Enlisted Men	Reference	Remarks
1st Brigade	1,527	O.R. Series I Vol.2:568 #118	2nd & 8th South Carolina only
2nd Brigade	2,444	O.R. Series I Vol.2:568 #117	
3rd Brigade	--	Battle of First Manassas and Blackburn's Ford Bearss 1981:87,88	remained at McLean's Ford did not participate
4th Brigade	--	Battle of First Manassas and Encampment at Blackburn's Ford	remained at Blackburns's Ford did not participate
5th Brigade	3,276	O.R. Series I Vol.2:568 #118	1st Louisiana 7 cos. 8th Virginia, 3 cos. 49th Virginia, 18th, 19th and 28th Virginia
6th Brigade	1,775	O.R. Series I Vol.2:568 #118	13th Mississippi, 7th Virginia, 4th South Carolina
7th Brigade	--	O.R. Series I Vol.2:568 #118	1st Louisiana, totaled with 5th Brigade, 4th South Carolina totaled with 6th Brigade

Army of the Potomac
1st Corps Infantry
Brig. Gen. P.G.T. Beauregard

Command	Officers & Enlisted Men	Reference	Remarks
Holmes Brigade	1,265	O.R. Series I Vol.2:565	2nd Tennessee and 1st Arkansas
7th Louisiana	827	O.R. Series I Vol.2:568 #118	unattached
8th Louisiana	508	O.R. Series I Vol.2:568 #118	unattached
Hampton's Legion	627	O.R. Series I Vol.2:568 #118	6 companies from South Carolina
TOTAL	12,249		

Army of the Shenandoah
1st Corps Infantry
Brig. Gen. Joseph E. Johnston

Brigade	Brigade Commander	Unit Commander	Unit Name	Remarks
1st	Brig. Gen. T.J. Jackson	Col. Allen	2nd Virginia	
		Col. J.F. Preston	4th Virginia	
		Col. Harper	5th Virginia	
		Col. Echols	27th Virginia	
		Col. Cummings	33rd Virginia	
2cd	Col. F.S. Bartow	Col. Gartell	7th Georgia	
		Col. Gardner	8th Georgia	
		Col. Elzey	9th Georgia	did not participate
		Col. Duncan	1st Kentucky	ditto
		Col. Pope	2nd Kentucky	ditto
3rd	Brig. Gen. Bernard E. Bee	Col. Turney	1st Tennessee	did not participate
		Col. Falkner	2nd Mississippi	
		Col. Liddell	11th Mississippi	
		Col. Jones	4th Alabama	
		Col. Fisher	6th North Carolina	
4th	Brig. Gen. E. Kirby Smith	Col. F.J. Steuart	1st Maryland	
	Col. A. Elzey	Col. Vaughan	3rd Tennessee	Col. Elzey took command after Gen. Smith was wounded
		Col. Gibbons	10th Virginia	
		Col. A.P. Hill	13th Virginia	held in reserve

Army of the Shenandoah
2nd Corps Infantry
Brigadier General Joseph E. Johnston

Command	Officers & Enlisted Men	Reference	Remarks
1st Brigade	2,611	Johnston 1913:110	
2nd Brigade	1,019	Bearss 1981:35	9th Georgia, 1st and 2nd Kentucky not counted in totals
3rd Brigade	2,693	Bearss 1981:35	1st Tennessee not counted in totals
4th Brigade	1,700	Johnston 1913:110	13th Virginia not counted in totals
TOTAL	8,023		

McDowell's army has been estimated at approximately 35,000 troops. Of that number less than 20,000 were engaged in the battle. Some regiments saw no action at all during the battle. Estimated losses for the Union army were approximately 3,000 killed, wounded, or missing. McDowell has been criticized for his failure to utilize the strong reserves under his command.

Legions

Legions were military organizations which normally included infantry, artillery and cavalry. "Hampton's Legion" was the only legion engaged at First Manassas. Col. Wade Hampton, wealthy planter and politician, organized, financed and commanded this South Carolina legion.

The month-old infantry legion of six companies arrived at Manassas Junction by train the morning of the 21st. They were ordered forward to a position on the north slope of Henry Hill. Hampton's Legion fought along Warrenton Turnpike and the Robinson House farm lane securing the Confederate right flank. In spite of losing 121 men in two hours, this unit was able to stem the pursuit and force the retreat of Col. E.D. Keyes Brigade.

Under the supervision of Hampton Legion's chief surgeon Dr. John Thompson Darby, the Lewis house, Portici, was transformed into a Confederate field hospital. Both Union and Confederate casualties were treated there.

Artillery

The artillery used by the Confederate army in 1861 was classed by its weight, caliber, and mobility as either light or heavy. Light, or field, artillery was mobile enough to move with the army during active operations. Heavy artillery usually referred to seacoast, siege, or garrison weaponry. Seacoast artillery were the heaviest. These were fired from a mounted, fixed position. Siege and garrison guns were used to attack or defend fortifications and field works.

Only light artillery was deployed by the Confederates at First Manassas. The combined total of the weapons used by the Army of the Potomac and the Army of the Shenandoah included five 12-pounder howitzers, 31 6-pounder smoothbores, two 6-pounder rifles, two 6-pounder smoothbore Cadet guns and six 10-pounder rifled Parrotts. The poundage refers to the weight of the projectiles fired by a particular gun. The primary difference between rifled guns and smoothbore cannons is in the design of the barrel's interior.

A smoothbore does not have lands and grooves cut within the interior of the barrel. These lands and grooves, called "rifling," create a spinning action when a projectile moves through the barrel. Rifling increased both the range and accuracy of firing projectile. Rifled guns were considerably more expensive to manufacture.

The three types of ammunition used by the artillery included solid shot, case shot, and shell. Solid shot consisted of a solid iron ball commonly called a cannonball. Solid shot was especially effective over long distances. It was most often used in the destruction of buildings, wagons, and other large objects. Case shot came in two varieties, spherical case and canister. Spherical case (shrapnel) used a timed charge. A typical round for a 6-pounder contained 38 balls and was timed to burst over or in front of enemy troops within 500 to 1,000 yards. The tin cylinder canister was the most lethal and effective type of round. This round was extremely effective at close range, within 600 yards or less, against infantry and cavalry. The canisters were filled with iron or lead balls and had the impact of a huge sawed-off shotgun blast. Shells consisted of a hollow iron projectile filled with a black powder bursting charge which fragmented the case. Shell was used against buildings, earthworks, and troops under cover.

Field guns were grouped in batteries and sections. A battery in the Confederate army usually consisted of four guns, commanded by a captain. A section was comprised of two guns under the command of a lieutenant. Each gun was mounted on a two-wheeled carriage. The carriage, when on march, was coupled to a second two-wheeled vehicle called a limber. The limber was pulled by six horses. It also carried an ammunition chest containing 50 rounds of ammunition. Two additional ammunition chests were carried on a two-wheeled cart called a caisson. The caisson was attached to its own limber and also carried a spare wheel and tools. A minimum of one caisson was assigned to each cannon.

Each battery strived to be accompanied by a traveling forge and battery wagon. These four-wheeled vehicles carried the supplies necessary to keep each unit in a battle-ready state. A gun-crew, whenever possible, consisted of nine men. Each man had a specific duty on the battlefield. A well-trained and disciplined battery could come into action and fire its first shot in less than one minute. An experienced gun crew could fire three aimed shots every 60 seconds.

Like the other two military arms, artillery batteries were generally named after the person, city, or county of origin. Many served in their respective state militia prior to being mustered into service.

Army of the Potomac
1st Corps Artillery
Brig. Gen. P.G.T. Beauregard

Brigade	Remarks	Total Guns and Type	Officers	Enlisted Men	Total
1st		4 6-pdr smoothbores	4	76	80
2nd	See 6th Brigade total	4 12-pdr howitzers	-	-	-
3rd	Remained at McLean's Ford	-	-	-	-
4th	Remained at Blackburn's Ford	-	-	-	-
5th		8 6-pdr smoothbores	3	55	58
6th		2 6-pdr rifles 3 6-pdr smoothbores	4	56	60
7th	see 5th Brigade		4	86	90
Reserve	Purcell Artillery	6-10 pdr Parrot-Rifles	-	-	90
TOTALS			15	273	378

Army of the Potomac
1st Corps Artillery
Brig. Gen. P.G.T. Beauregard

Command	Officers & Enlisted Men	Reference	Remarks
1st Brigade	80	O.R. Series I, Vol.2:568 #118	1 battery of Alexandria Lt. -4 guns See note (1)
2nd Brigade	-	ibid	Wash.Louisiana Co. 4 5 guns See note (2)
3rd Brigade	-	Bearss 1981:21	Wash. Louisiana Co. 2 stayed at McLean's Ford
4th Brigade	-	Bearss 1981:21	Wash. Louisiana Co. 3 stayed at Blackburns's Ford
5th Brigade	58	O.R. Series I Vol.2:568 #118	4 guns - See note (3)
6th Brigade	60	ibid	see 2nd Brigade
7th Brigade	90	-	See 5th Brigade See note (4)
Purcell's	90	O.R. Series I Vol.2:568 #118	
Camp Pickens	-	--	See Note (5)
Total	378		

Army of the Potomac
1st Corps Artillery
Brig. Gen. P.G.T. Beauregard

Brigade	Brigade Commander	Artillery Commander	Name of Unit	Total Guns and Type	Officers	Enl'td Men	Total
1st	Brig. Gen. M.L. Bonham	Capt. D. Kemper Capt. J.C. Shields	Alexandria Light 1st Co. Richmond Howitzers	4 6-pdr smooth-bores 4 6-pdr howitzers	4	76	80 Remained at Mitchell's Ford
2nd	Brig. Gen. R.S. Ewell	Lt. T.L. Rosser	1st Co. 1 battery Washington Art.	4 12-pdr howitzers	Remained at Union Mills		
3rd	Brig. Gen. D.R. Jones	Capt. M.B. Miller	2nd Co. 1 section Washington Art.	2 6-pdr smooth-bores	Remained at McLean's Ford		
4th	Brig. Gen. J. Longstreet	Lt. J.J. Garnett	3rd Co. 1 section Washington Art.	1 6-pdr smooth-bore 1 6-pdr rifle	Remained at Blackburn's Ford		
5th	Col. P. St. George Cocke	Capt. A.L. Rogers Lt. Heaton Capt. H.G. Latham	Loudoun Art. 1 section Loudoun 1 section Lynchburg Art.	4 6-pdr smooth-bores ditto ditto 4 6-pdr smooth-bores	3	55	58 See 7th Brigade total
6th	Col. Jubal A. Early	Lt. C.W. Squires Lt. J.B. Richardson Lt. J.B. Whittington	4th Co.1 battery Washington Art. " "	3 6-pdr smooth-bores 2 6-pdr rifles	4	56	60
7th	Brig. Gen. Nathan G. Evans	Capt. H.G. Latham Capt. G.S. Davidson Lt. Leftwich	Lynchburg Art. "	see 5th brigade	4	86	90
Reserve	Gen. T.H. Holmes	Capt. R.L. Walker	Purcell Artillery	6 10-pdr Parrott guns	-	-	90

Army of the Shenandoah
2nd Corps Artillery

Brigade	Brigade Commander	Artillery Commander	Name of Unit	Remarks
1st	Brig. Gen. T.J. Jackson	Col. W.N. Pendelton (6) Capt. J.P. Brockenbrough	Rockbridge Art. of Lexington, Va.	1 6-pdr smoothbore 2 6-pdr smoothbores Cadet guns 1 12-pdr howitzer
2nd	Col. F.S. Bartow	Capt. E.G. Alburtis Lt. John Pelham	Wise Art.	4 6-pdr smoothbores
3rd	Brig. Gen. Bernard E. Bee	Capt. J. Imboden	Staunton Art.	4 6-pdr smoothbores
4th	Brig. Gen. E. Kirby Smith Col. A.Elzey	Lt. R.F. Beckham	Culpeper Art. (aka) Groves Art. Newton Art.	4 6-pdr smoothbores
Un-brigaded		Capt. P.B. Stanard (7)	Thomas Art.	4 6-pdr smoothbores

Command	Officers & Enlisted Men	Reference	Remarks
1st Brigade		Johnston 1913:110	
2nd Brigade		ibid	
3rd Brigade		ibid	
4th Brigade		ibid	
Unbrigaded		ibid	Thomas Artillery
TOTAL	278		

Confederate artillery stationed on the hills near the Henry house, Portici and along the banks of Bull Run, was effective in damaging the Federal lines. Controlling the high ground of this gently rolling terrain proved advantageous to the artillerists. Artillery was deployed by Brig. Gen. Joseph E. Johnston from his headquarters at the Lewis house. They took a position on the adjacent crest near the plantations'orchard and the Ball family cemetery. This location provided an unobstructed view of Bull Run and the Stone Bridge. Throughout the day many sections of artillery fired from this strategic point. Among these were the "Culpeper", "Loudoun" and "Wise" Artillery from Virginia and the "Washington Artillery" from New Orleans, Louisiana. The "Purcell Artillery" arrived late on the battlefield but fired on the retreating Union army with its 10-pounder rifled Parrotts.

Holding an artillery battery in reserve proved valuable. When Beckham's battery joined Stuart's cavalry in mauling the right flank of Col. Oliver O. Howard's Federal Brigade on Chinn Ridge, it was the deadly cannon range of this battery which drove Howard's exhausted troops into an disorganized retreat. This began the chain of events ultimately leading to the Federal defeat.

One of the last projectiles fired by the "Alexandria Artillery" exploded on Cub Run Bridge. The impact occurred just as the retreating Federal troops were crossing adding to the wild confusion. This shot was allegedly fired by Edmund Ruffin, the secessionist of Fort Sumter fame.

Cavalry

The term cavalry was used to distinguish the mounted arm of the military. It applied to those forces who served on horseback and were trained to fight mounted or dismounted. Their arms were generally the sabre, pistol, and carbine.

Many counties and towns within the state militia had their own company of cavalry. Cavalry names were prefixed with the name of the county, such as the "Botetourt Dragoons," or the city, such as the "Harrisonburg Cavalry." Other prefixes included the name of their captain or the person who organized them. The cavalry's distinction from other companies was in name only.

After these volunteer companies were mustered from the militia into active service they were formed into regiments. Following this they were given a letter designation. Thus the "Loudoun Light Horse" was known as "Company H" of the 1st Regiment Virginia Cavalry. The term troop was not used with a letter designation. Troop and company were synonymous in the cavalry. Squadron was

the tactical field organization comprised of two companies commanded by a senior captain.

During First Manassas the cavalry on or at Portici consisted of two regiments, the 1st and 30th Virginia, plus 10 unattached companies. The 30th Virginia was under the command of Col. R.C.W. Radford. The unattached companies were assigned to Brig. Gen. P.G.T. Beauregard. The 1st Virginia under the command of Col. J.E.B. Stuart, belonged to Brig. Gen. Joseph E. Johnston's Army of the Shenandoah.

The majority of the 30th Virginia was attached to Brigadier Gen. M.L. Bonham's 1st Brigade. Several individual companies from the 30th Virginia were assigned to other brigades. The separate unattached companies and the 30th Virginia were primarily used as escort and courier service for the infantry brigades. In fact, Capt. R.E. Utterback's "Little Fork Rangers" escorted Confederate President Jefferson Davis to Gen. Johnston's headquarters at Portici. These activities so depleted the detachments that only Col. Stuart's 1st Virginia endured close fighting.

Col. Stuart's cavalry drove the 11th New York Fire Zouaves from Henry Hill. They also initiated Col. Oliver O. Howard's 3rd Brigade retreat from Chinn Ridge. At the conclusion of the battle the cavalry was effective in hastening the Federal retreat by riding toward them. They were also instrumental in capturing Federal prisoners, arms, and accouterments.

Army of the Potomac
1st Corps Cavalry
Brigadier General P.G.T. Beauregard

Command	Officers & Enlisted Men	Reference	Remarks
30th Virginia	676	O.R. series I, Vol. 2:568 #117	not more than 500 troops including the ten independent companies were engaged on the 21st
Harrison's Battalion	209	"	
Independent companies	583	"	
TOTALS	1368		

Army of the Potomac
1st Corps Cavalry

Brigade	Brigade Commander	Cavalry Commander	Unit	Remarks
1st	Brig. Gen. M.L. Bonham	Col. R.C.W. Radford	30th Virginia battalion	
2nd	Brig. Gen. R.S. Ewell	Lt. Col. W. Jenifer	1/2 battalion	
3rd	Brig. Gen. D.R. Jones	Capt. J.W. Flood	30th Virginia - 1 company Company H	remained at McLean's Ford
4th	Brig. Gen. J. Longstreet	Capt. E. Whitehead	30th Virginia - 1 company Company E	remained at Blackburn's Ford
5th	Col. P. St. George Cocke	Capt. J.S. Langhorn	30th Virginia - 1 company Company A	
6th	Col. Jubal A. Early	-	-	
7th	Brig. Gen. Nathan G. Evans	Capt. J.D. Alexander Capt. W.R. Terry	30th Virginia - 1 company Company I 30th Virginia - 1 company Company A	
Holmes	Gen. T.H. Holmes	Capt. Scott		
Un-brigaded Un-brigaded	-	- Maj. Julian Harrison	10 independent companies Harrison's Battalion (4 companies)	

Army of the Shenandoah
2nd Corps Cavalry
Brig. Gen. Joseph E. Johnston

Brigade	Brigade Commander	Calvary Commander	Unit	Remarks
1st	Brig. Gen. T.J. Jackson	-	-	
2nd	Col. F.S. Bartow	-	-	
3rd	Brig. Gen. Bernard E.Bee	-	-	
4th	Brig. Gen. E.Kirby Smith Col. A Elzey	-	-	
Un-brigaded		Col. James Ewell Brown Stuart	1st Virginia	11 companies total Only 8 at 1st Manassas

Army of the Shenandoah
2nd Corps Cavalry
Brigadier General Joseph E. Johnston

Command	Officers & Enlisted Men	Reference	Remarks
1st Virginia	334	Hanson 1953:12	
TOTAL	334		

1st Regiment, Virginia Cavalry
Col. James Ewell Brown Stuart

Company	Company Commander	Name	Remarks
A	Capt. J.H. Drake	Newton Light Dragoons	
B	Capt. J.B. Hoge	Capt. John Blair Hoge's Co.	
C	Capt. M.H. White	Rockbridge Dragoons	
D	Capt. W.E. Jones	Washington Mounted Rifles	Formerly called Co. L
E	Capt. W. Patrick	Valley Rangers	
F	Capt. J. Reinhart	Shepherdstown Troop	
G	Capt. S.S. Weisiger	Amelia Light Dragoons	
H	Capt. R.W. Carter	Loudoun Light Horse	
I	Capt. T.L. Yancey	Harrisonburg Cavalry	
K	Capt. E.S.Yancey	Rockingham Cavalry	
L	-	-	See Co. D
M	Capt. G.R. Gaither, Jr.	Howard Dragoons	Composed of Marylanders formerly called Co. M

The Clarke Cavalry and the Gloucester Dragoons are believed to be attached to this regiment after 1st Manassas and is not included.

30th Regiment, Virginia Volunteers Cavalry
Col. Richard Carlton Walker Radford
Lt. Col. Thomas T. Munford

Company	Company Commander	Name	Remarks
A	Capt. W.R. Terry	Clay Dragoons	
B	Capt. J.S. Langhorne	Wise Troop	
C	Capt. A.L. Pitzer	Botetourt Dragoons	
D	Capt. G.W.H. Hale	Franklin Rangers	
E	Capt. E. Whitehead	Amherst Mounted Dragoons	remained at Blackburn's Ford
F	Capt. J. Wilson	Bedford Southside Rangers	
G	Capt. W. Radford	Radford Rangers	
H	Capt. J.W. Flood	Appomattox Rangers	remained at McLean's Ford
I	Capt. J.D. Alexander	Campbell Rangers	
K	Capt. E. Davis	Albemarle Light Horse	

The 30th Reg. Virginia Vol. became the 2nd Regiment Virginia Cavalry. It had been organized in May 1861. This regiment did not surrender, but was disbanded on April 10, 1865, at Lynchburg.

Independent Companies Cavalry *

Commander	Troop Name	Remarks
Capt. W.W. Thorton	Prince William Cavalry	remained at Mitchells Ford
Capt. W.B. Ball	Chesterfield Light Dragoons	
Capt. W. Thomas	Madison Invincibles	
Capt. R.E. Utterback	Little Fork Rangers	1/2 of troop escorted President Davis to Portici, other 1/2 with Lay's command
Capt. J.F. Lay	Powatan Troop	Couriers and escort for Gen. Beauregard
Capt. J. Harrison	Goochland Light Dragoons	
Capt. W.C. Wickham	Hanover Light Dragoons	
Capt. J. Scott	Black Horse Troop	Gen. Johnston, Gen. Bonham escorts
Capt. J.G. Cabell	Governors Mounted Guard	
Capt. R.L. Dulany	Loudoun Dragoons	
Capt. J.S. Green	The Old Guard	
Capt. E.B. Powell	Fairfax Cavalry	
Capt. J.A. Adams	Wise Dragoons	

* These independent companies also include Major Harrison's four companies. These companies later became the 4th Regiment, Virginia Cavalry, and part of the 6th Regiment, Virginia Cavalry.

Artillery Notes:

(1) The Richmond Howitzers, 1st Company, remained with the 1st Brigade at Mitchell's Ford and are not counted.

(2) The Washington Artillery from New Orleans, Louisiana was a battalion of four companies commanded by Maj. John B. Walton. Only Company 4 was at or near Portici plantation and are counted in the total.

(3) & (4) Capt. H.G. Latham's Lynchburg Artillery was divided in two sections, two guns each. . One section was with Cocke's 5th Brigade. The other section was with Evans' 7th Brigade. Both sections are listed under Evans' 7th Brigade.

(5) The Camp Pickens Battery guarded Manassas defenses and are not counted.

(6) Col. William Nelson Pendleton was Chief of Artillery for the Army of the Shenandoah.

(7) Capt. Stanard's Battery was assigned to Jackson's 1st Brigade.

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APPENDIX C

Archival Methodology

The archival research of Portici began in April of 1986 with three intensive weeks of work. This project also permitted the ultimate luxury of on-going research, as time was available, over the next three years.

Portici's chain of title was established through land causes, wills, deeds, and probate records at the Prince William County Courthouse, Manassas, Virginia. Land tract maps depicting property transactions were studied at the Prince William County Mapping Office, Manassas, Virginia.

Information concerning the various owners and residents of Portici and Pohoke was gleaned from Personal Property Tax Records of 1800 through 1860 and Land Tax Records from 1782 through 1860. These records are available at the Prince William County Library in Manassas, Virginia. Both sets of documents provide detailed information regarding household and personal possessions, acreage, number of tithes, slave, vehicles, structures and livestock.

The total number, age and occupation of all persons, both free and slave, residing at Portici was provided by the National Census Records from 1790 through 1860. These records are located at the National Archives in Washington, D.C. Military Records of housed at this facility were also reviewed.

APPENDIX D

Criteria for Nomination to the National Register of Historic Places

Administered by the National Park Service, the National Register of Historic Places is the official list of the Nation's cultural resources worthy of preservation. Authorized under the National Historic Preservation Act, as amended, the National Register is part of a program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources nationally. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. These resources contribute to an understanding of the historical and cultural foundations of the nation.

The National Register criteria are designed to guide the Keeper of the National Register, State Historic Preservation Officers, Federal agencies, local governments, preservation organizations, and members of the general public in evaluating properties for entries in the National Register. Decisions concerning the significance and historic integrity of properties can only be made reliably when the criteria are applied within related historic contexts.

Listing in the National Register assists in the preservation of historic properties by providing National recognition of the value of historic properties individually and collectively to the Nation, by making property owners eligible for Federal tax incentives and other preservation assistance, by identifying significant properties to be considered in Federal cultural resource planning and management.

The National Register Criteria

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. that are associated with events that have made a significant contribution to the broad patterns of our history; or

B. that are associated with the lives of persons significant in our past; or

C. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded, or may be likely to yield, information important in prehistory or history.

Guidelines For Evaluating and Stating Significance

Historic Site

a. How does the property relate to the significant event, occupation, or activity that took place there?

b. How have alterations such as the destruction of original buildings, changes in land use, and changes in foliage or topography affected the integrity of the site and its ability to convey its significant associations?

c. In what ways does the event that occurred here reflect the broad patterns of American history and why is it significant?

Archeological Site

a. What is the cultural context in which the property is considered significant? How does the site relate to what is currently known of the region's history or prehistory and similar known sites?

b. What kinds of information can the known data categories yield? What additional kinds of information are expected to be present on the basis of knowledge of similar sites? What similarities permit comparison with other known sites.

c. What is the property's potential for research? What research questions may be addressed at the site. How do the questions relate to the current understanding of the region's archeology? How does the property contribute to or have the potential for contributing important information regarding human ecology, cultural history or cultural process? What evidence, including scholarly investigations, supports the evaluation of significance? Given the existence of material remains with research potential, what is the context that establishes the importance of the recoverable data, taking into account the current state of knowledge in specified topical areas?

d. How does the integrity of the property affect its significance and potential to yield important information?

e. If the site has been totally excavated, how has the information yielded contributed to the knowledge of American cultures to the extent that the site is significant for the investigation that occurred here?

f. Does the property possess features or qualities for which it might be architecturally or historically important? If so, how are they significant?

Level of Significance

This is the geographic area -- local, state or national -- for which a property has been found to have importance.

Guidelines for Evaluating Local Significance

1. "Local" may be used to indicate a geographical or cultural area within a state such as a community, town, city, county, or other area not defined by specific political boundaries.

2. A property with local significance helps us understand the history of the area it is in by illuminating the impact of the associated events or persons; architectural type or style; or information potential within a community, town, county, or modest geographical or cultural area. Local significance may also apply to a property that illuminates a theme that is important to one or more localities.

3. A theme may be of local significance even though properties representing that theme occurred only in a portion of the community or county.

4. The level of significance of archeological sites significant for their information potential depends on the scope of the applicable research design.

5. Determining that a property is locally significant requires knowledge of other properties associated with the same local historical theme or themes. This would include extant properties as well as those that previously existed.

6. Because a property must be of at least local significance to be included in the National Register, a property whose importance does not extend beyond its own street or block is not sufficient significance to qualify.

Guidelines for Evaluating State Significance

1. "State" refers to any one of the fifty states, American Samoa, the District of Columbia, the Commonwealth of the Northern Marianas Islands, Guam, Puerto Rico, the Trust Territory of the Pacific, or the Virgin Islands.

2. A property with state significance helps us understand the history of the state as a whole by illuminating the state-wide impact of events or persons associated with the property, or its architectural type or style, or information potential. State significance may also apply to a property that illustrates a theme that is important to the history of the state.

3. A historical or architectural theme may have a state level of significance, although its geographical expression was limited to a portion of the present political boundaries.

4. Because states are relatively recent political entities and usually do not correspond closely to Native American political territories or cultural areas, few prehistoric sites can be said to be of "state" significance, per se. Numerous sites, however, may be of significance to a large region that might geographically encompass parts of one, or usually several, states. Prehistoric resources that might be of state significance would include regional type sites that provide either a diagnostic assemblage of artifacts for a particular cultural group or time period, or chronological control for a series of cultural groups. These resources should be classified as being of state significance.

5. Determining that a property is of state significance requires a knowledge of other properties associated with the same historical theme throughout the state. This would include extant properties as well as those that previously existed.

6. A property with information potential or that is associated with events, persons, or architectural types or styles whose impact appears to have extended beyond the local level may be significant at the state level. A property may be significant to more than one community or locality, however, without having achieved state significance.

7. A property located partially in several states may be significant to the state or local history of each of the states. However, such a property is not necessarily of national significance, nor is it necessarily significant to all the states in which it is located.

8. Properties that are of state significance are generally also of local significance.

Guidelines for Evaluating National Significance

1. "National" refers to the United States and its territories as a whole. Nationally significant properties listed in the National Register are the historical units of the National Park System and those properties that have been designated National Historic Landmarks.

2. A property with national significance helps us understand the history of the nation by illustrating the nationwide impact of events or persons associated with the property, its architectural type or style, or information potential. A nationally significant property is of exceptional value in representing or illustrating an important theme in the history of the nation.

3. A theme may be of national significance although its geographical expression was limited to a portion of what is today the United States.

4. Nationally significant prehistoric properties might include those resources which through content or excavation techniques have had a profound influence on the direction of research goals of the discipline of anthropology in the United States. Another category of sites that may be considered nationally significant would be those that document major developmental trends. Unusually long sequences of occupation or an exceptional state of preservation may increase the scope of the impact of the information potential, and therefore the significance of the site.

5. Determining that a property is of national significance requires a national perspective. It requires knowledge of other properties associated with the relevant historical theme or themes throughout the nation. This would include extant populations as well as those that previously existed.

6. Properties with information potential or associated with events, persons, or architectural types or styles or construction techniques whose impact appears to extend beyond the state level may be appropriate for consideration as nationally significant. However, a property may have been significant to more than one state without having achieved national significance.

7. Properties of national significance are generally also of state and local significance.

APPENDIX E

Sites 44PW336 and 44PW339

Introduction

Sites 44PW336 and 44PW339 were initially recorded in James Madison University's 1985 Phase I Report. These sites represented two of the four historic sites tentatively identified as the antebellum plantation Portici. All four sites fell within the boundaries targeted for the picnic grove relocation by Manassas National Battlefield Park's General Management Plan. Archeological investigations were conducted at sites 44PW336 and 44PW339 in May 1986.

Archeological Methodology

Fieldwork at each site began with a controlled surface collection. A point was chosen near the center of the site and established as the site datum (0,0 coordinate). Four base lines were set with a transit in each of the cardinal directions. Spikes were placed at ten-foot intervals along each line. A grid of ten foot-by-ten foot squares, 231 squares, or units, at site 44PW336 and 519 units at site 44PW339, were soon in place.

Each of these units was inspected for historic and prehistoric artifacts. All artifacts were collected. Architectural materials, such as brick, mortar, paving slate, roofing slate, and sandstone footers, were counted and mapped. Information recovered from each unit was transferred to an artifact distribution map(Figures 1 and 2). Areas of specialized activities, extended use, or those retaining architectural features, are more readily defined through these maps.

A shovel testing program was next employed to explore the possibility of subsurface cultural deposition in those areas exhibiting a high surface artifact density. Twenty shovel tests at site 44PW336 revealed a relatively uniform stratigraphy across the site. The plow zone, a reddish-brown (5YR4/4) silty clay loam, averages approximately 5.6 inches in depth. A minimal amount of cultural material was recovered from the plow zone. Beneath the plow zone is a very hard-packed, weak red (10YR4/4), silty clay, sterile, subsoil with deteriorated sandstone inclusions. No cultural features or intrusions were observed. Testing was therefore concluded.

Forty-four shovel tests were conducted at site 44PW339. A relatively uniform stratigraphy was found across this site as well. There is an approximately three-inch deep plow zone of reddish-brown (5YR4/4) silty clay loam. This overlies a plow pan of hard-packed, reddish-brown (5YR5/4) silty clay loam mottled with red (10YR4/4) clay peds and deteriorated sandstone inclusions. The second stratum extends to approximately eight inches below the ground surface. Beneath this plow pan is dense, hard-packed, weak-red (10R4/4) clay with deteriorated sandstone inclusions. No cultural materials, features, or intrusions were present beneath the plow pan. Testing was therefore concluded at site 44PW339.

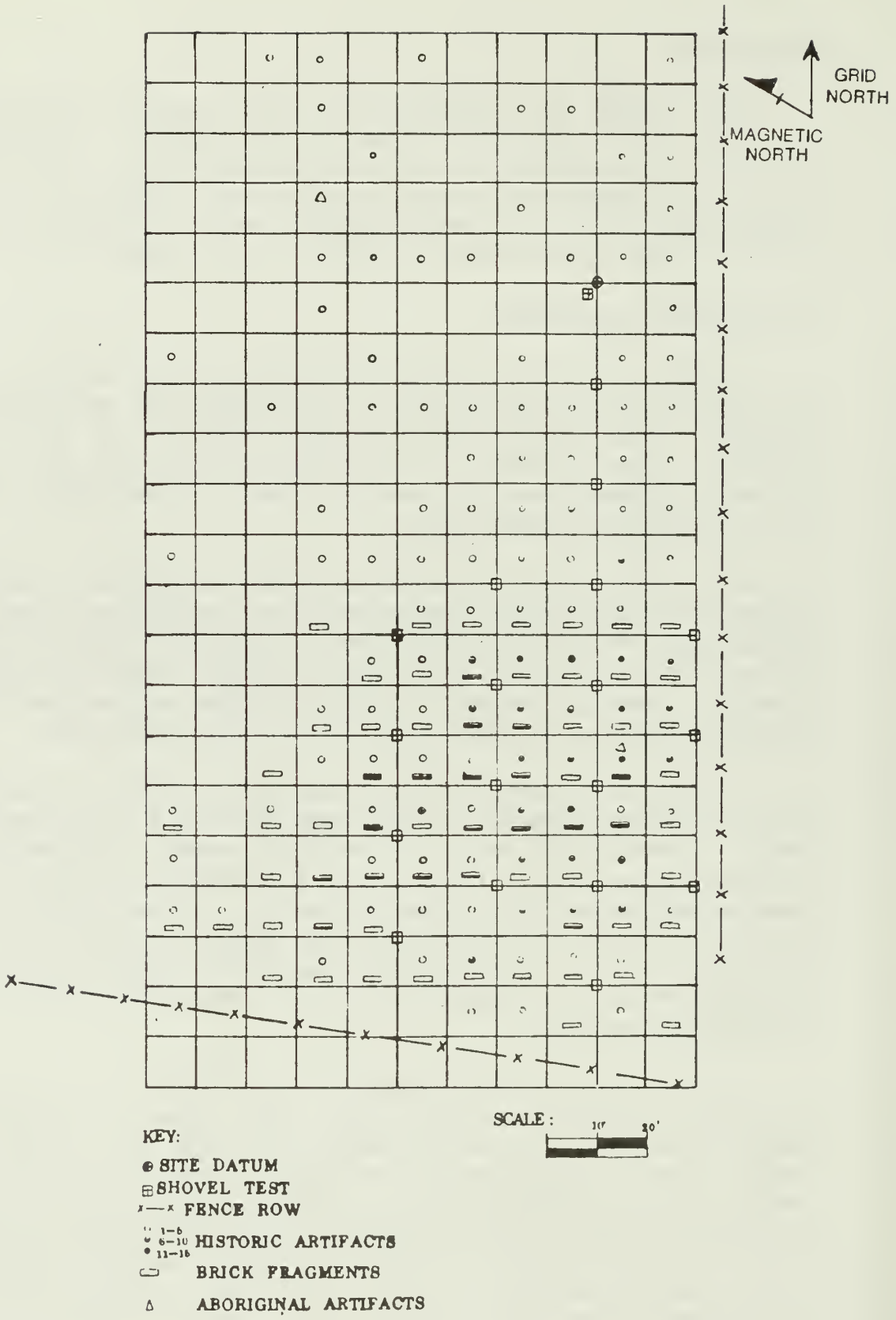


Figure 1 Site 44PW336 artifact distribution map. Cluster of domestic, agricultural, and architec material (lower right) suggests the location of dependencies associated with Portici plantation.

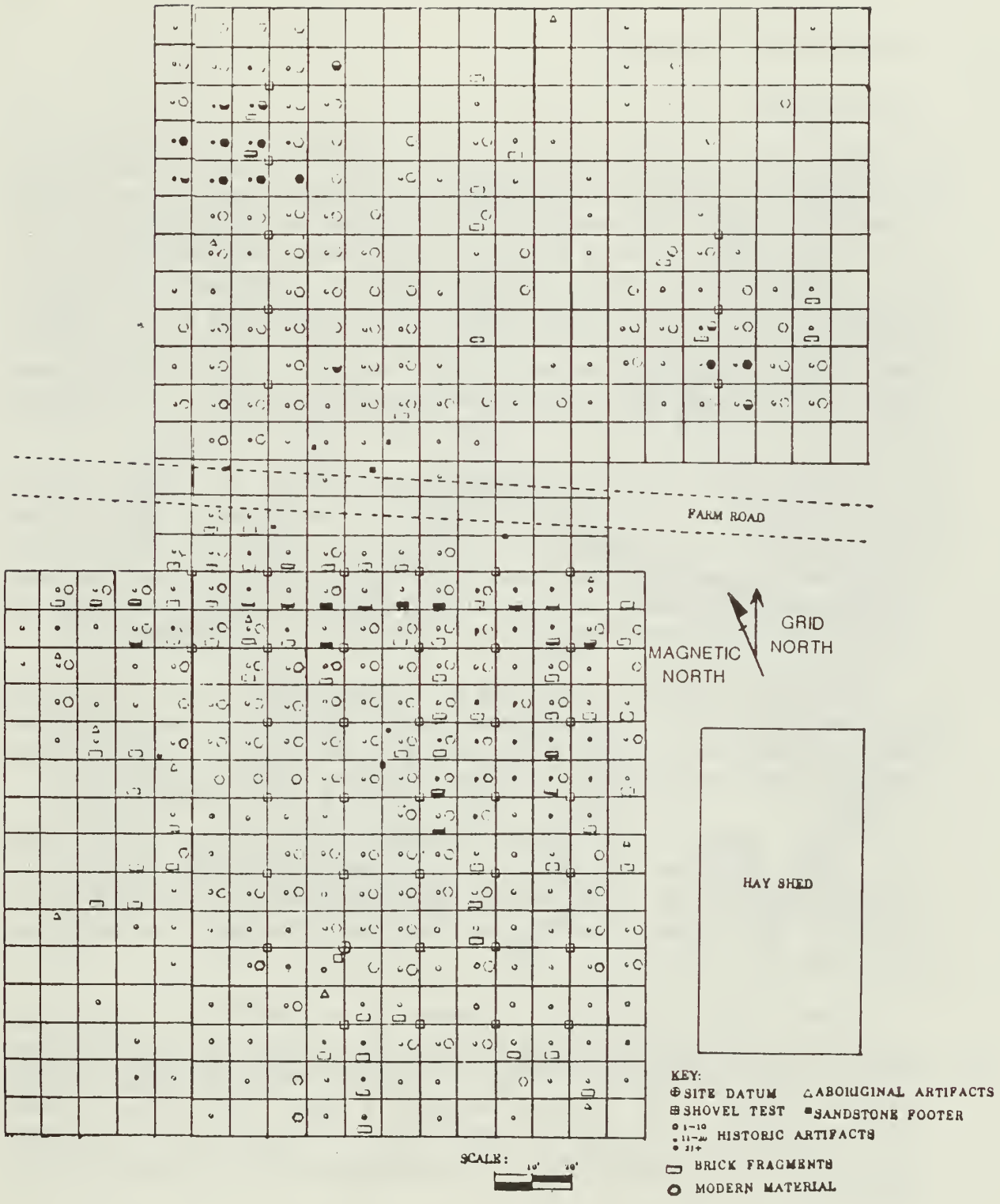


Figure 2 Site 44PW339 artifact distribution map. Cluster of domestic and architectural material (center) suggests the location of a postbellum house site associated with a relative of the twentieth-century Lewis family.

Analysis and Conclusions

Site 44PW336

The cultural materials recovered from site 44PW336 suggest a small, domestic occupation. The ceramic and nail assemblages indicate this site was occupied from circa 1780 through circa 1870. The site's close proximity to the nineteenth century plantation complex of Portici, site 44PW348, implies it may have been an out-building associated with that plantation complex. Architectural materials such as machine-cut nails, window glass, and brick fragments, along with the absence of structural foundations, suggest a less-substantial, rude structure, such as a slave cabin. These cabins were generally of frame construction, set upon brick or stone piers. Very little of these impermanent structures survive in the archeological record, particularly in extensively cultivated areas, such as this.

A map drawn by an officer of Beauregard's staff in 1861, shortly after the First Battle of Manassas, includes the Portici plantation complex. The plantation is shown in a linear configuration with two geometric clusters of structures. The first cluster consists of the main house and five dependencies. The second cluster is apparently associated with agricultural activities. This second cluster of buildings is shown in approximately the same location as site 44PW336.

The artifact assemblage recovered from this site suggest it may have served as a field slave quarter. The 1861 map further suggests these probable quarters were affiliated with a barn or livestock area as well. The latter facilities generally leave little archeological evidence attesting to their presence.

A small amount of late nineteenth and early twentith century artifacts were also recovered at site 44PW336. This material is probably the result of trash-dumping episodes by individuals from the nearby sites of 44PW339 or 44PW345. The occupation dates of both these sites correspond to the postbellum date range of the objects.

There is also a prehistoric component at site 44PW336. This earliest occupation is represented primarily by quartz and quartzite flakes and debitage. The tools recovered from this aboriginal camp site include one biface and two projectile points. One of these points is a small, Late Archaic, quartz, side-notched, point. The other is a Halifax-like, side-notched, quartzite, projectile point with a heavily reworked blade. Both projectile points date to approximately 3,000 B.C.

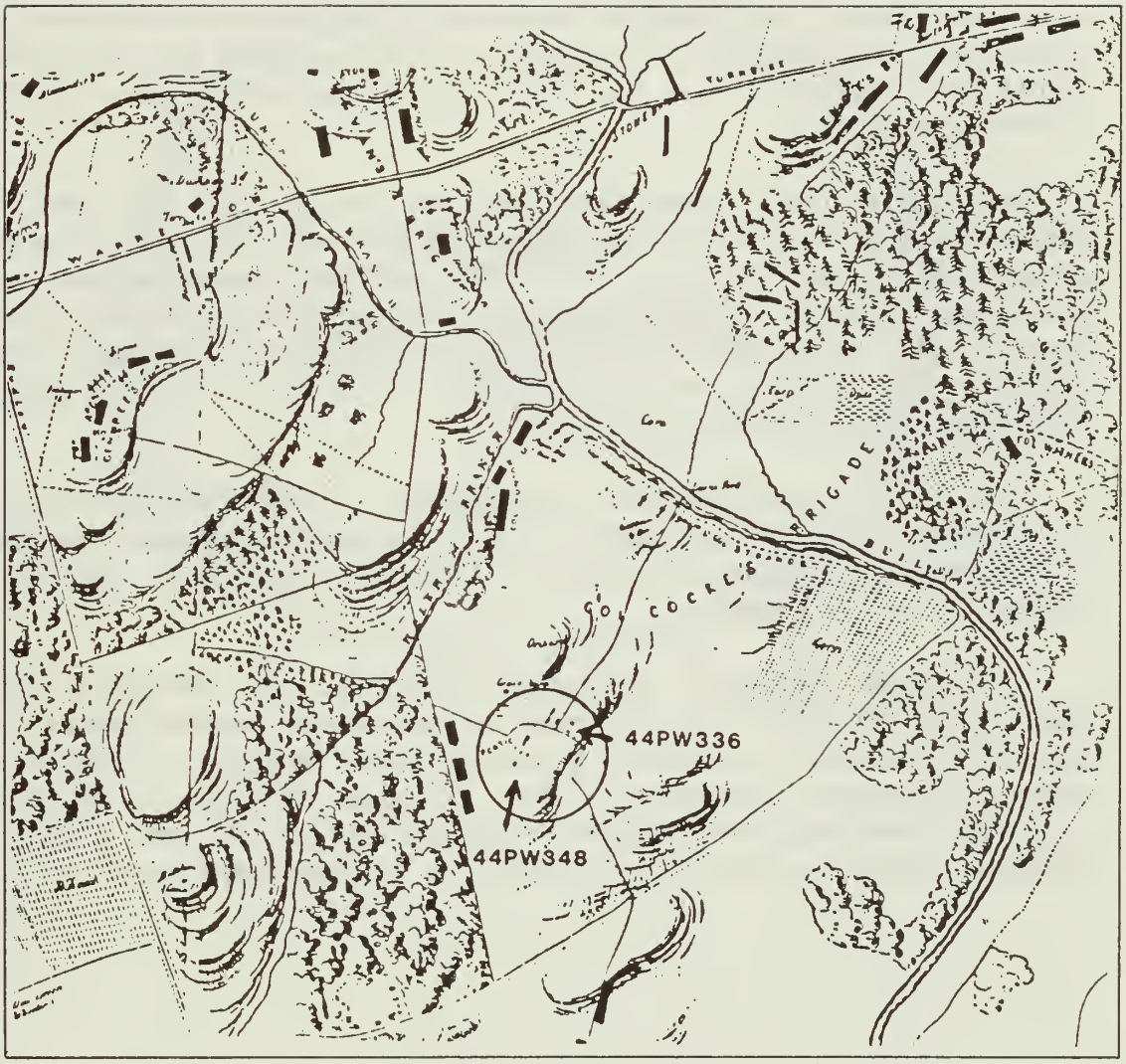


Figure 3 Unscaled Confederate map drawn in 1861 indicating the location of structures associated with the Portici plantation complex.

Site 44PW339

Materials recovered from the surface and shovel testing at site 44PW339 were primarily of a domestic nature. These artifacts date from circa 1890 through circa 1940. Though no foundations were located, the domestic and architectural artifact assemblages suggest the presence of a small house site near the northwest corner of the extant, modern hay shed. The site appears to be of relatively short-term occupation.

An interview with Emrey Fred Best on July 11, 1987 (Mr. Best is a descendent of antebellum Portici's Adeline Ball Best and spent much of his youth at the twentith century Portici, site 44PW345) confirmed this interpretation of the archeological findings. He identified the area west of the hay shed as the former house site of a Mrs. Henry. This woman was related to the Lewis family through marriage. She resided at the house into the 1930s. The property was allegedly demolished by the Lewises in the 1940s.

There is also a small prehistoric component at site 44PW339. This occupation is represented by a surface scatter of quartz and quartzite debitage and flakes. No diagnostic artifacts were recovered. Consequently, no date range can be ascribed to the lithic scatter.

A singular postbellum occupation constitutes site 44PW339's historic component. This placed the site outside the scope of the projects primary focus concerning antebellum and bellum periods at Portici plantation. This site does contain information pertaining to the continuing evolution of postbellum agricultural complexes in the Northern Virginia Piedmont. As such, it may yield important information concerning this phase of Virginia's agricultural history.

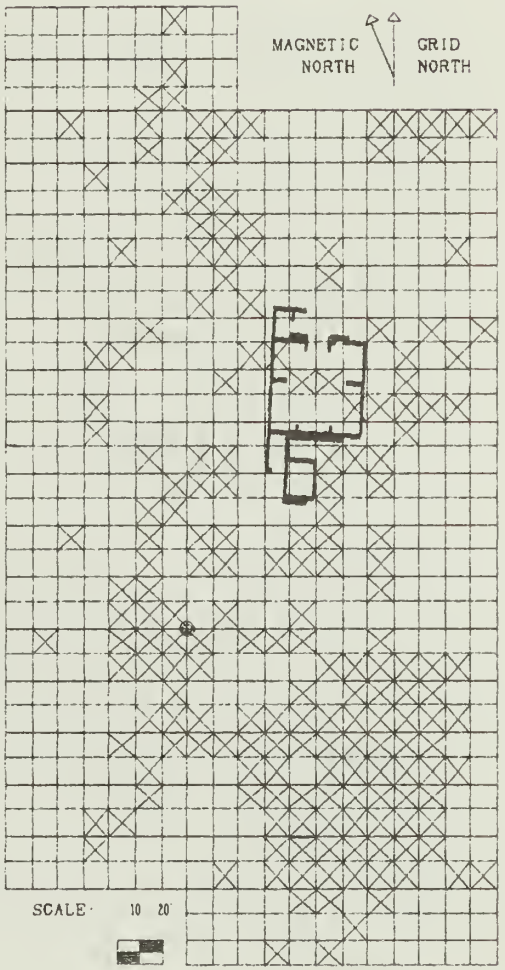
APPENDIX F

Surface Distribution Maps
Portici

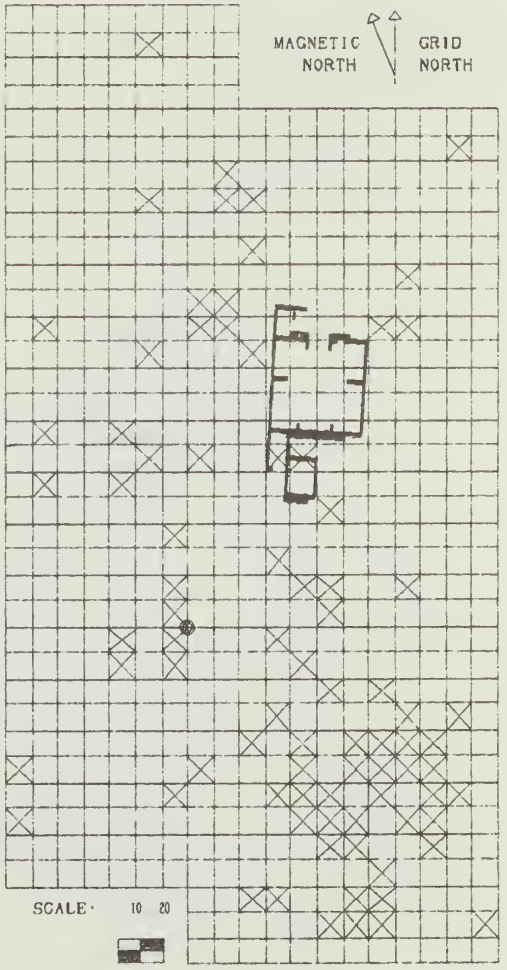
44PW348

SURFACE DISTRIBUTION

REFINED CERAMICS



UTILITARIAN CERAMICS

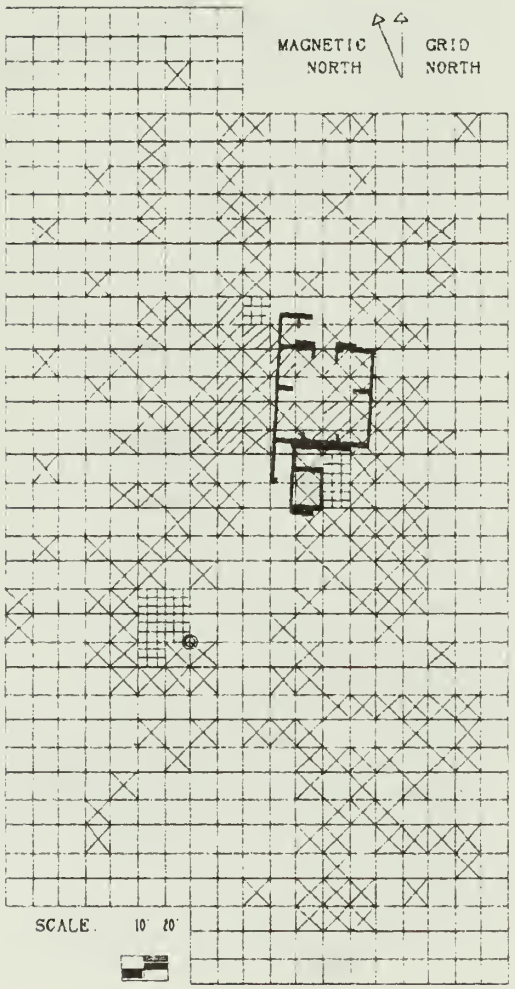


KEY ⊕ SITE DATUM ⊠ 1-10 ARTIFACTS ▨ 11-20 ARTIFACTS ▦ 21+ ARTIFACTS ▬ FOUNDATION

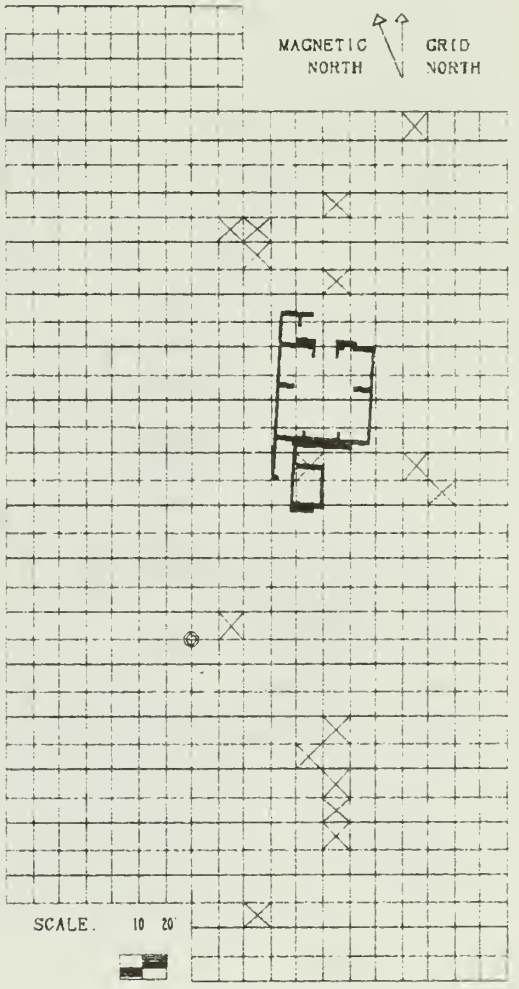
44PW348

SURFACE DISTRIBUTION

WINDOW GLASS



LEADED GLASS

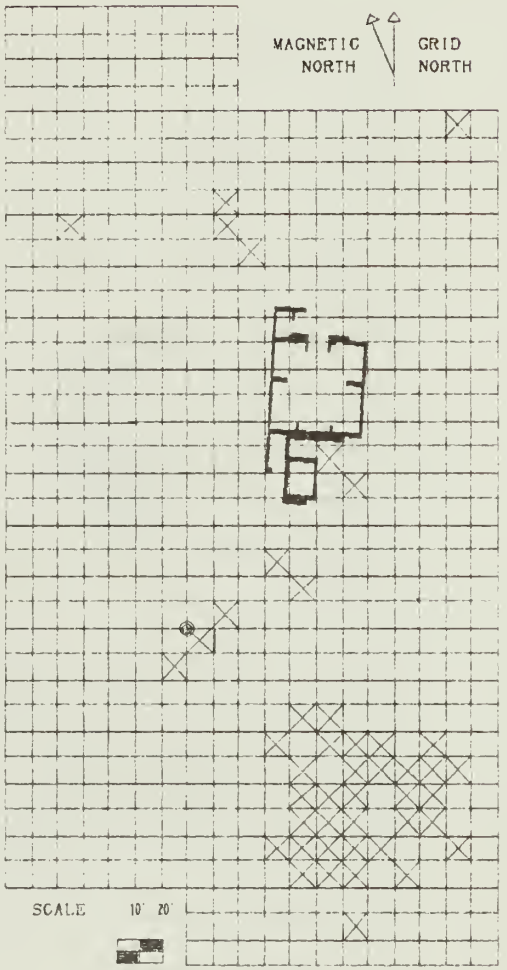


KEY: ⊕ SITE DATUM ▨ 1-10 ARTIFACTS ▨ 11-20 ARTIFACTS ▨ 21+ ARTIFACTS ▭ FOUNDATION

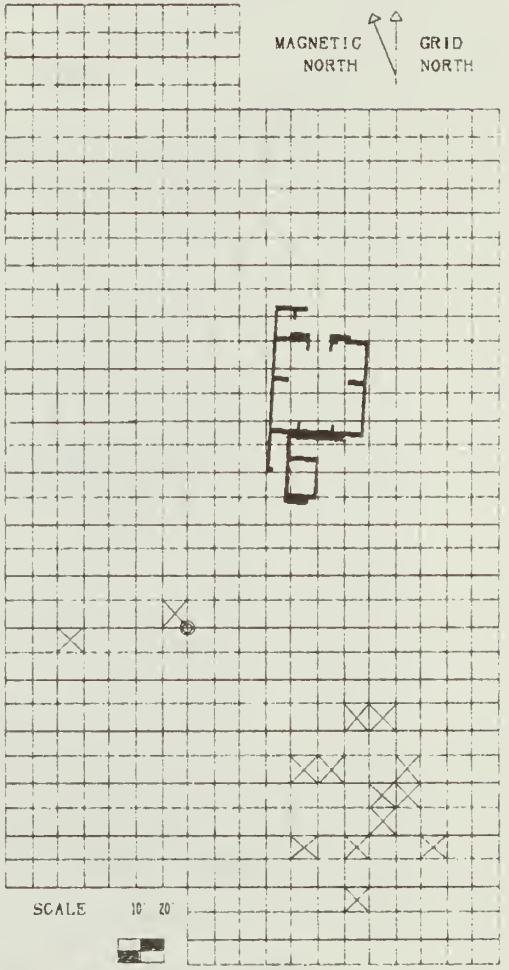
44PW348

SURFACE DISTRIBUTION

OYSTER/CLAM SHELLS



FAUNAL MATERIAL

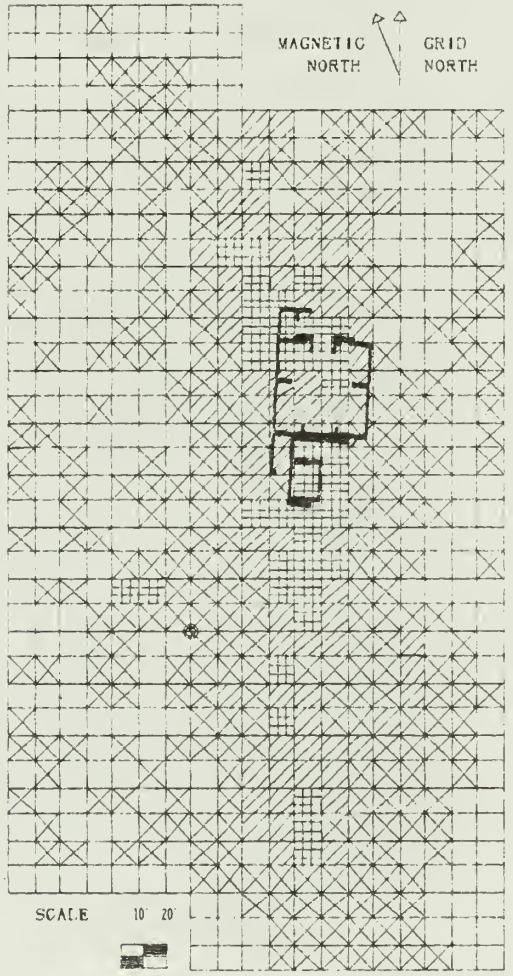


KEY ⊕ SITE DATUM ⊠ 1-10 ARTIFACTS ▨ 11-20 ARTIFACTS ▦ 21+ ARTIFACTS ═ FOUNDATION

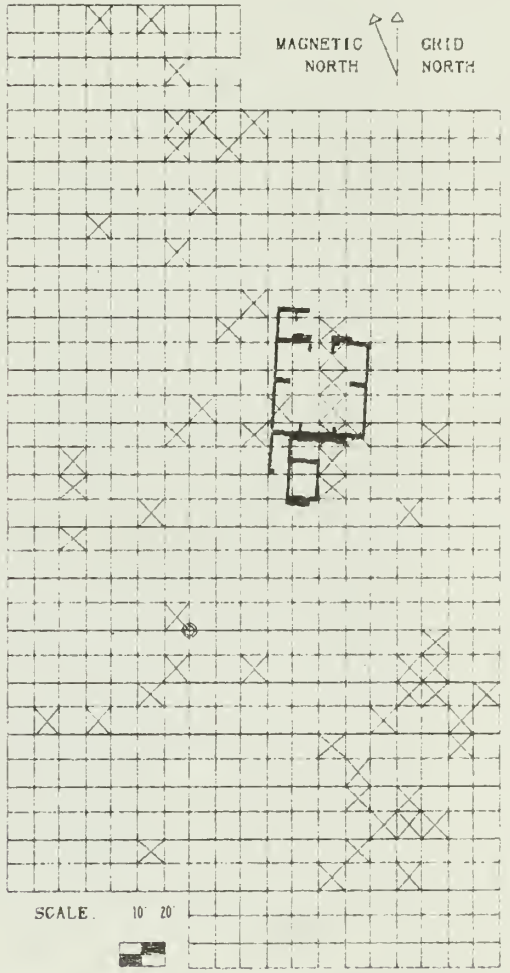
44PW348

SURFACE DISTRIBUTION

ARCHITECTURAL ARTIFACTS



NAILS

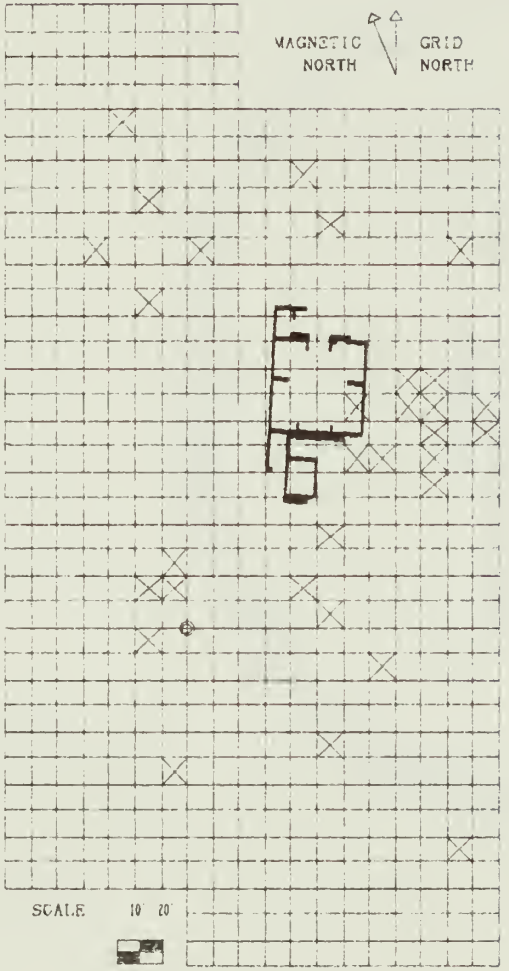


KEY ⊕ SITE DATUM ▨ 1-10 ARTIFACTS ▨ 11-21 ARTIFACTS ▨ 21+ ARTIFACTS ▬ FOUNDATION

44PW348

SURFACE DISTRIBUTION

PREHISTORIC ARTIFACTS



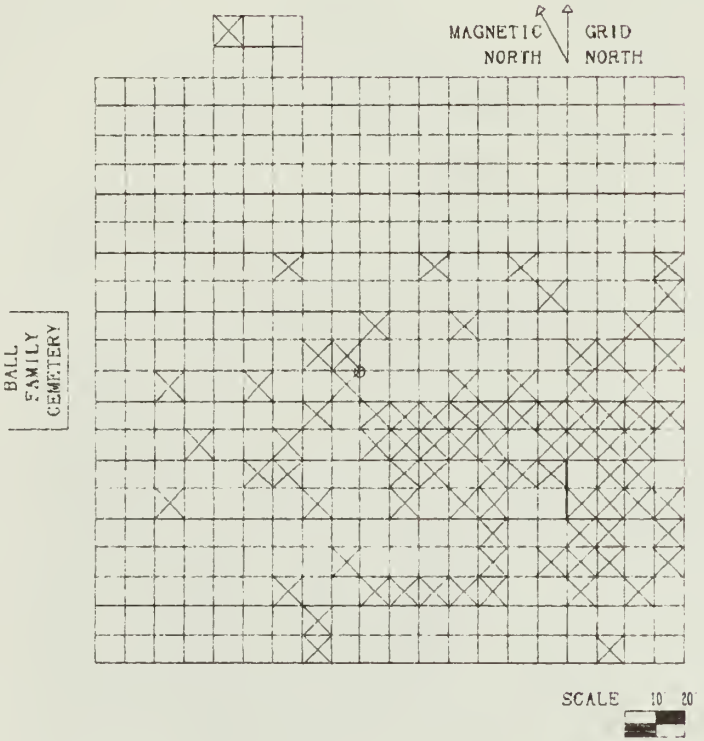
KEY ⊕ SITE DATUM ⊠ 1-10 ARTIFACTS ▨ 11-21 ARTIFACTS ▦ 21+ ARTIFACTS ▬ FOUNDATION

APPENDIX G

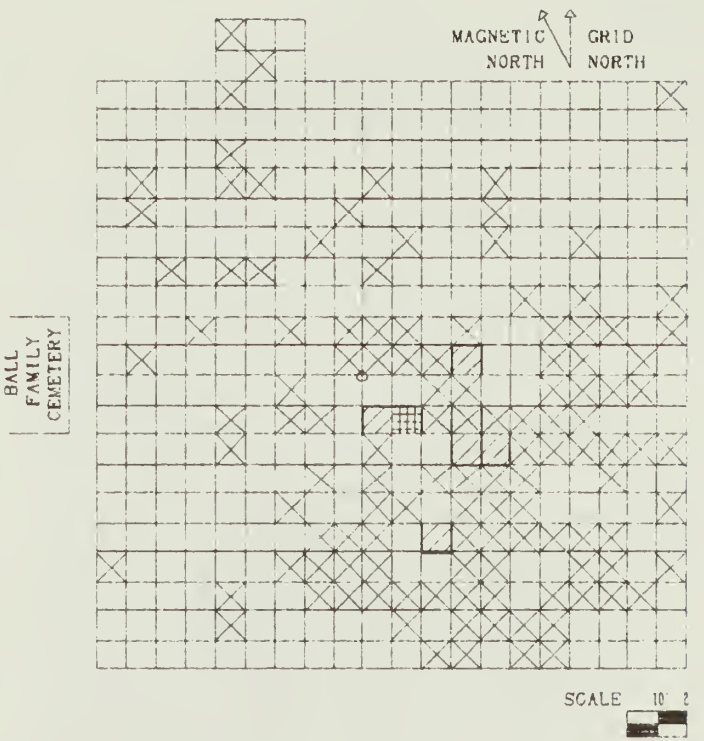
Surface Distribution Maps
Pohoke

SURFACE DISTRIBUTION

UTILITARIAN CERAMICS



REFINED CERAMICS

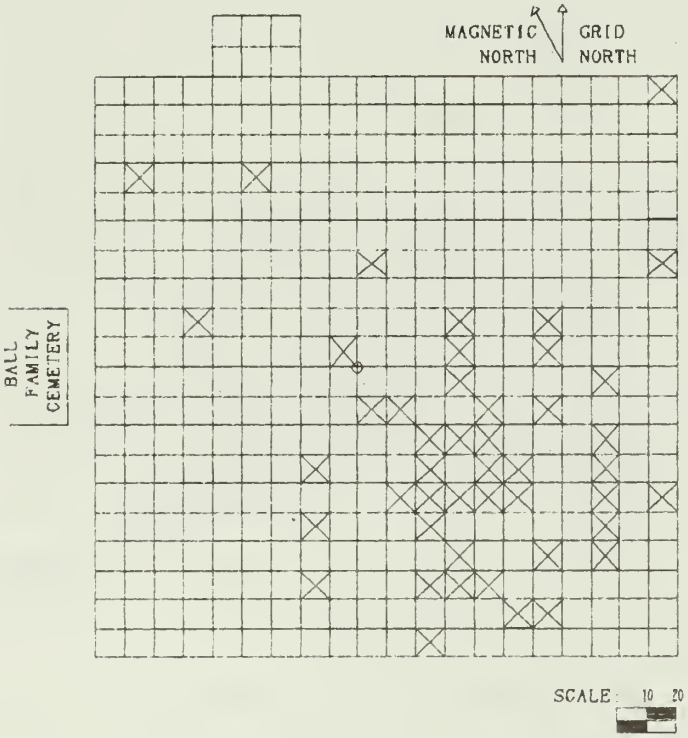


KEY ⊕ SITE DATUM ☒ 1-5 ARTIFACTS ▨ 6-10 ARTIFACTS ▦ 11+ ARTIFACTS

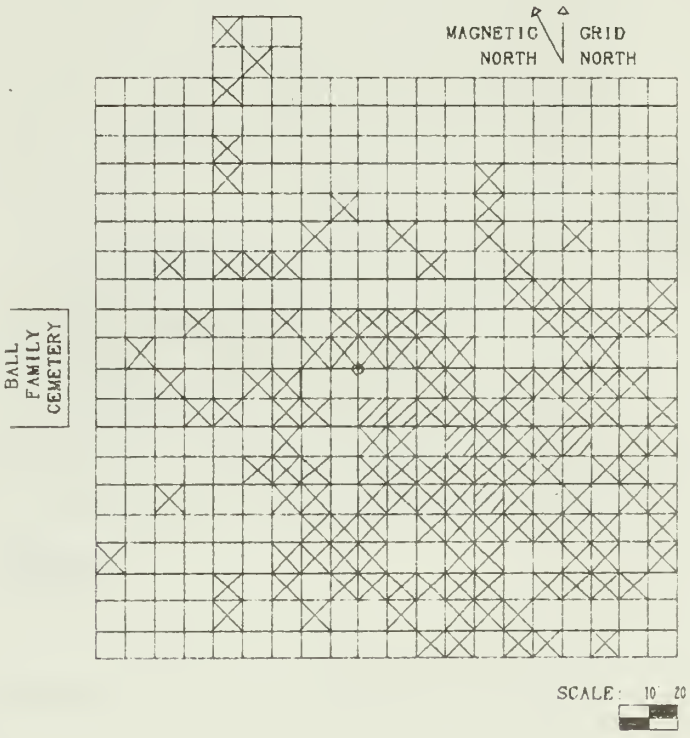
44PW335

SURFACE DISTRIBUTION

PRE-1820 CERAMICS



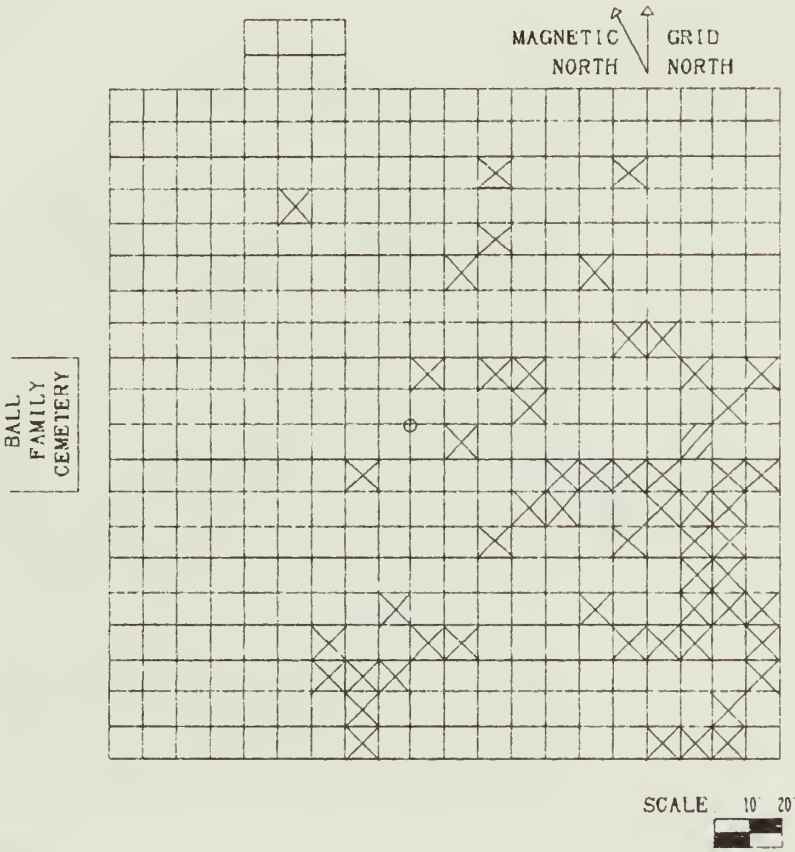
POST-1820 CERAMICS



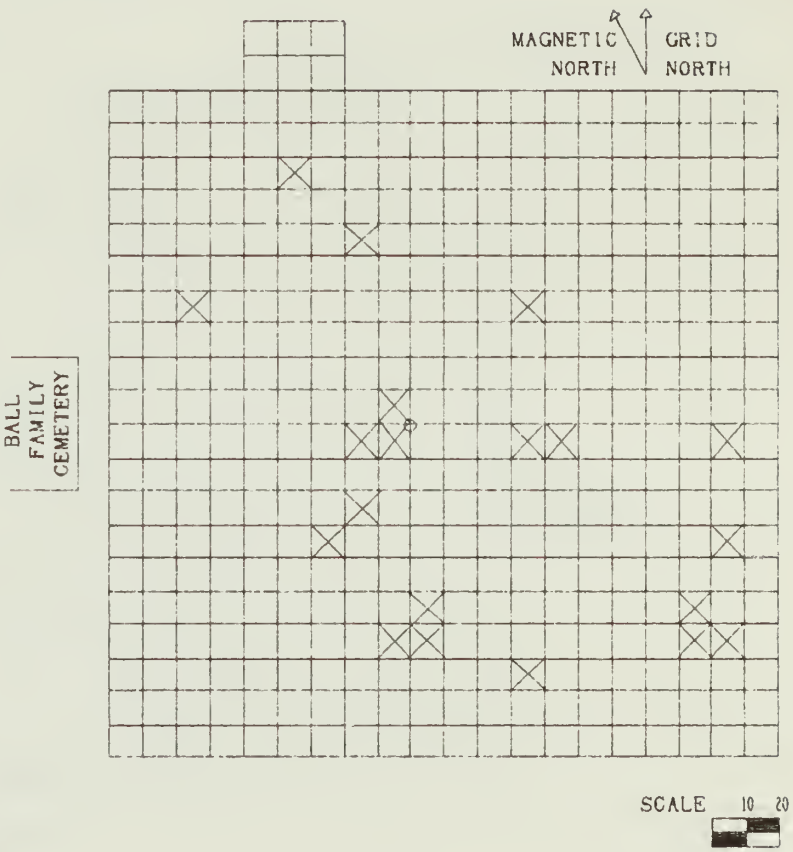
KEY ⊕ SITE DATUM ☒ 1-5 ARTIFACTS ▨ 6-10 ARTIFACTS ▦ 11+ ARTIFACTS

SURFACE DISTRIBUTION

ARCHITECTURAL ARTIFACTS



NAILS

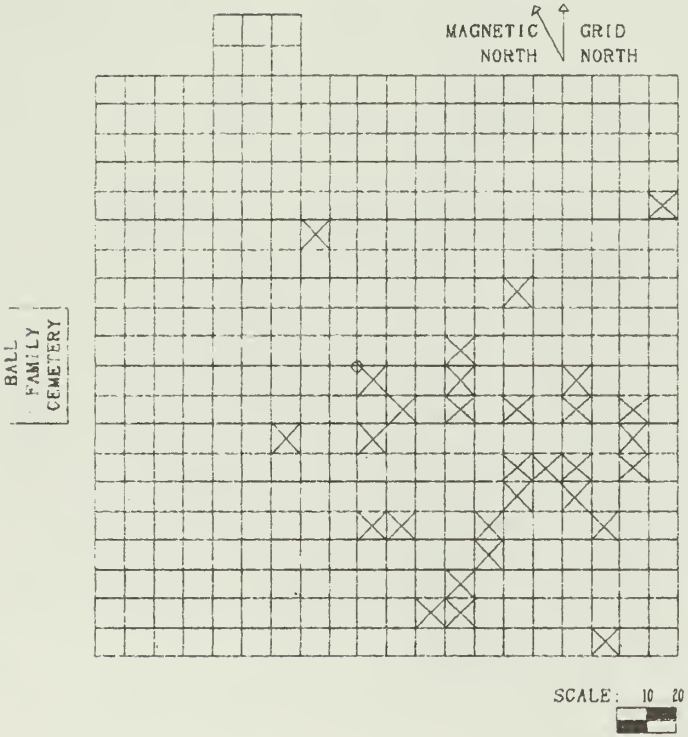


KEY: ⊕ SITE DATUM ☒ 1-5 ARTIFACTS ▨ 6-10 ARTIFACTS ▦ 11+ ARTIFACTS

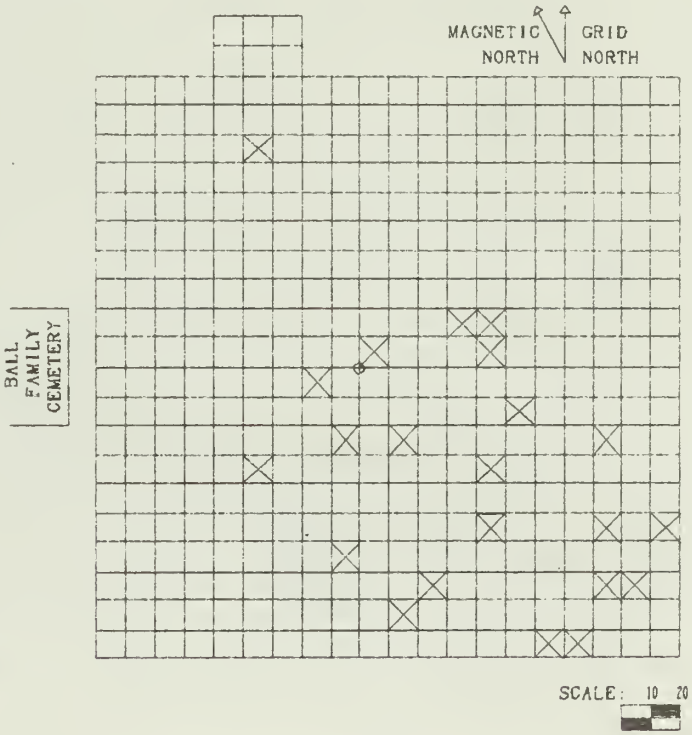
44PW335

SURFACE DISTRIBUTION

FAUNAL MATERIAL



OYSTER SHELLS

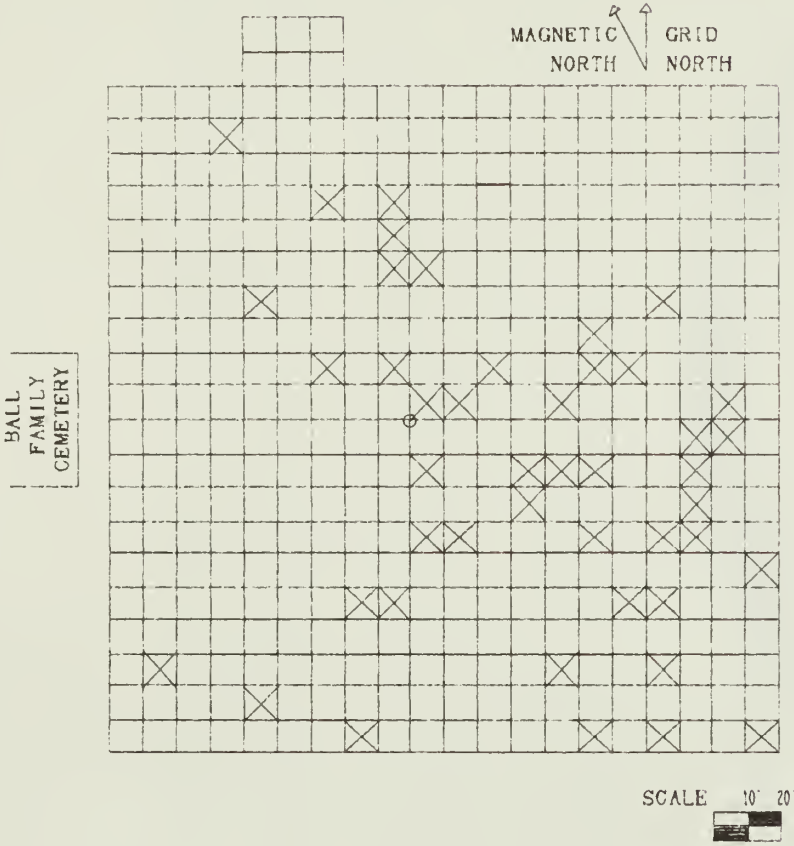


KEY ⊕ SITE DATUM ⊠ 1-5 ARTIFACTS ▨ 6-10 ARTIFACTS ▦ 11+ ARTIFACTS

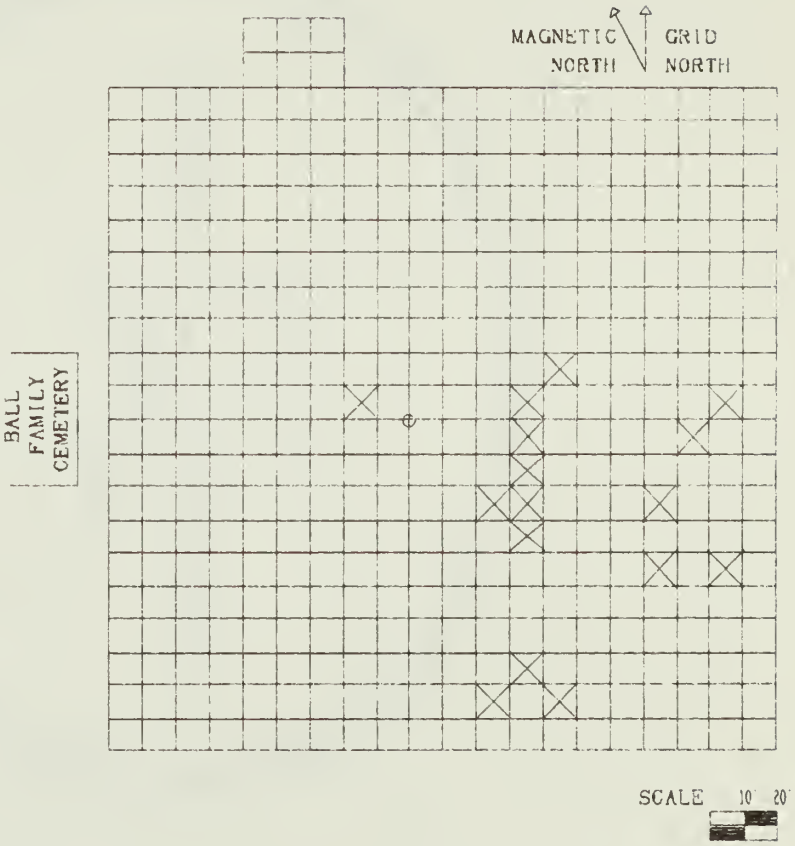
44PW335

SURFACE DISTRIBUTION

PREHISTORIC ARTIFACTS



WINDOW GLASS



KEY: ⊕ SITE DATUM ☒ 1-5 ARTIFACTS ▨ 6-10 ARTIFACTS ▦ 11+ ARTIFACTS

APPENDIX H

Soil Description and Stratigraphic Profiles of Unit 137, Pohoke

Stratigraphic Description: 44PW335 Unit 137 (S50, E40)

Stratum 1 Dark reddish-brown (5YR3/3) silty clay mottled with yellowish-brown (10YR5/4) silty clay. This stratum has been subjected to substantial agricultural activity and constitutes the plow zone.

Stratum 4 Dark brown (7.5YR3/3) very silty, clay loam mottled with charcoal flecks, brick bits, and yellowish-red (5YR4/6) clay peds. This stratum is apparently the result of surface run-off siltation and the dumping of trash generated by the antebellum occupants of Structure 1.

Stratum 5 Reddish-yellow (5YR6/6) friable, silty, clay mottled with charcoal flecks, and unmodified sandstone fragments. This stratum appears to be identical to the subsoil stratum elsewhere on this site.

Stratum 6 Reddish-brown (5YR4/4) silty, clay loam mottled with dark reddish-brown (5YR3/3) silty, clay loam, deteriorated sandstone chunks, charcoal, and brick fragments. This fill is associated with an animal burrow, probably ground-hog, which meanders through the excavation unit.

Stratum 7 Dark brown (7.5YR4/4) silt mottled with charcoal flecks and brick bits. This stratum is associated with the post-destruction, antebellum back-filling of Structure 2.

Stratum 8 Dark reddish-brown (5YR3/4) compact, very silty, clay loam, heavily mottled with charcoal flecks, brick bits, sandstone fragments, and patches of brown (10YR5/3) deteriorated mortar. This fill was apparently generated by surface run-off and antebellum trash disposal.

Stratum 9 Dark red (2.5YR3/6) hard-packed, silty clay, confined to the northwest quadrant of the unit. This fill apparently resulted from a small, isolated, antebellum fill episode.

Stratum 11 Reddish-brown (5YR4/4) very silty clay, mottled with patches of burned mortar, charcoal, brick bits, and sandstone fragments. Very dense concentration of artifacts. This fill apparently represents an extended period of antebellum trash deposition, probably generated by the occupants of Structure 1.

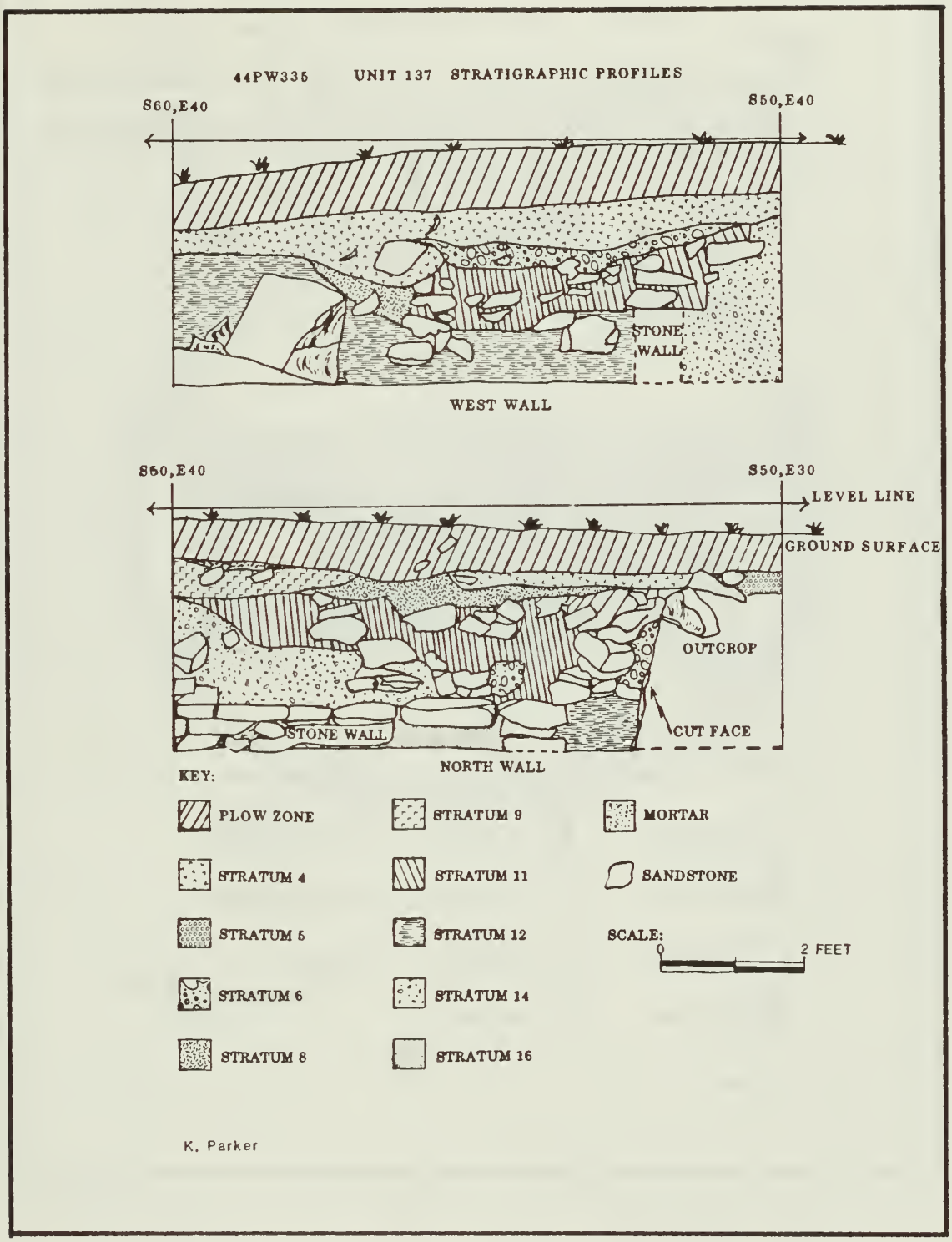
Stratum 12 Yellowish-red (5YR4/6) hard-packed, friable, silty clay, slightly mottled with charcoal flecks, brick bits, quartz pebbles, and deteriorated sandstone fragments. There is a notable decrease in artifact frequency. This stratum is very shallow and irregular. It appears to be a type of natural "cap" produced by erosion.

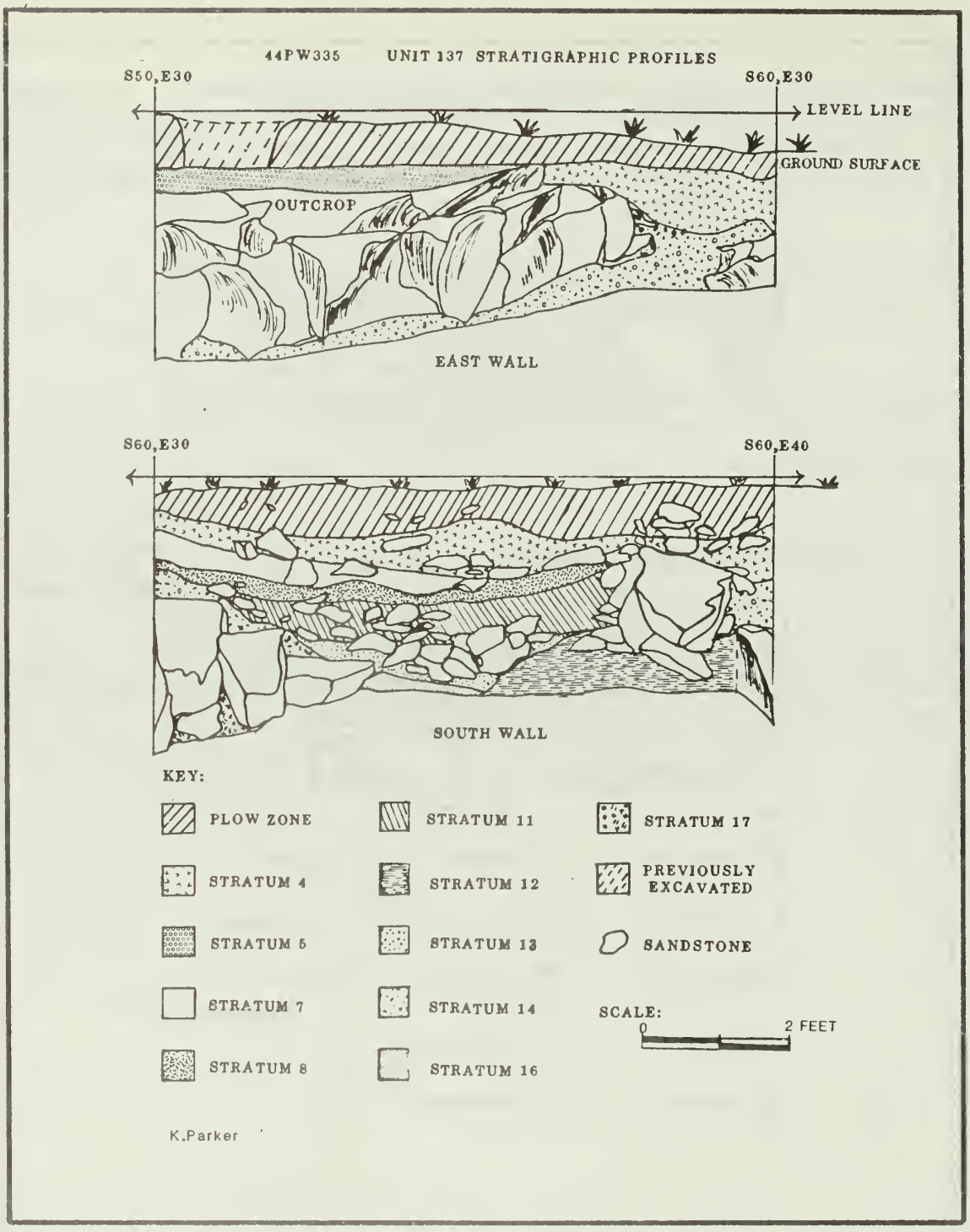
Stratum 13 Reddish-brown (5YR4/4) extremely silty clay. The size and frequency of the sandstone rubble increases in this stratum. The fill appears to be associated with the destruction of Structure 2.

Stratum 14 Dark reddish-brown (2.5YR3/4) compacted, friable, clay heavily mottled with chunks of deteriorated sandstone. The fill is very subsoil-like in character. It was apparently produced by another post-destruction siltation episode.

Stratum 16 Yellowish-red (5YR4/6) compacted, silty clay. Appears to be associated with the antebellum occupation of Structure 2.

Stratum 17 Dark red (2.5YR3/6) compacted, silty clay mottled with dark reddish-brown (2.5YR3/4) silty clay, deteriorated sandstone, and charcoal flecks. This fill is apparently a builders trench associated with the 18th century construction of Structure 2.


44PW335 UNIT 137 STRATIGRAPHIC PROFILES
S60,E40
S50,E40
STONE WALL
WEST WALL
S60,E40
S50,E30
LEVEL LINE
GROUND SURFACE
OUTCROP
CUT FACE
STONE WALL
NORTH WALL
KEY:
PLOW ZONE
STRATUM 4
STRATUM 5
STRATUM 6
STRATUM 8
STRATUM 9
STRATUM 11
STRATUM 12
STRATUM 14
STRATUM 16
MORTAR
SANDSTONE
SCALE:
0
2 FEET
K. Parker


44PW335 UNIT 137 STRATIGRAPHIC PROFILES
S50,E30
S60,E30
LEVEL LINE
GROUND SURFACE
OUTCROP
EAST WALL
S60,E30
S60,E40
SOUTH WALL
KEY:
PLOW ZONE
STRATUM 4
STRATUM 5
STRATUM 7
STRATUM 8
STRATUM 11
STRATUM 12
STRATUM 13
STRATUM 14
STRATUM 16
STRATUM 17
PREVIOUSLY EXCAVATED
SANDSTONE
SCALE:
0
2 FEET
K.Parker

APPENDIX I

Soil Description and Stratigraphic Profiles of Units 1 and 7, Portici

Stratigraphic Description: 44PW348 Unit 1 (N110, E70)

Stratum 1 Dark reddish-brown (5YR3/2) clay loam, with dense concentration of brick rubble, mortar and sandstone fragments. This stratum represents the plow zone and is disturbed by modern agricultural activity.

Stratum 2 Dark yellowish-brown (10YR3/4) clay loam with dense concentrations of brick rubble, mortar, sandstone fragments and architectural debris. This stratum represents the base of the 19th century plow zone intermixed with the rubble of the collapsed north chimney.

Stratum 3 Dark yellowish-brown (10YR4/4) silty, clay loam, heavily mottled with deteriorated brick and mortar. The latter imparts a granular texture to the fill. This stratum is composed primarily of the deteriorated remnants of the collapsed north chimney and a small amount of the overlying plow zone which has filtered through the architectural debris.

Stratum 4 Light gray (10YR7/1) to very dark grayish-brown (10YR3/2) ash, mottled with burned, deteriorated brown (10YR5/3) mortar, grayish-brown (10YR5/2) plaster, black (10YR2/1) charcoal, and brick rubble. A high number of machine-cut construction brads and finishing nails recovered, along with molten window glass, wine bottle glass and a circa 1823 cast-iron, Franklin-type, fireplace insert. This stratum apparently represents the collapsed second floor ceiling and walls of the manor house.

Stratum 5 Very dark gray (2.5YR3/0) and gray (2.5YR5/0) ash with dense concentrations of black (2.5YR2.5/0) charcoal and burned plaster fragments. There is no brick rubble present and there is a decrease in artifact frequency. This fill is probably the charred remnants of the second story floor and the ceiling of the first story.

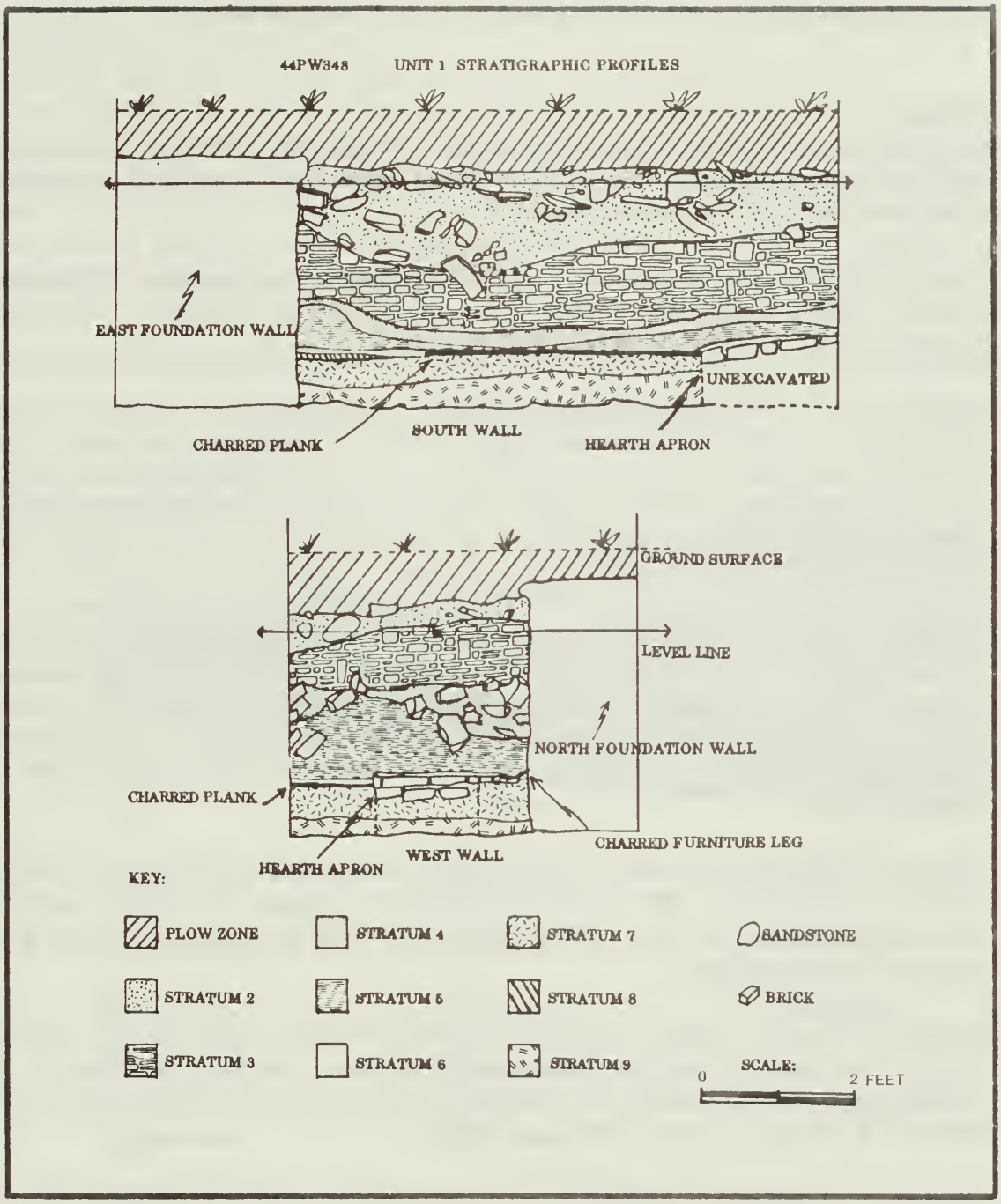
Stratum 6 Black (7.5YR2/0) ash mottled with patches of light gray (10YR7/1) ash and large streaks of light grayish-brown (10YR6/2) burned and deteriorated mortar. There is a tremendous amount of charcoal, charred timbers and plaster present as well. This stratum has been ravaged by ground water and the preservation of iron artifacts is extremely poor. Nine articulating ginger-beer bottle fragments and a charred cabriole chair or table leg were present in the stratum which probably represents the interior walls and floor boards of the first story.

Stratum 7 Dark reddish-gray (5YR4/2) silty loam mottled with gray (5YR5/1) ash, charcoal flecks, deteriorated mortar and plaster. Faunal material, silver or tin-washed cupric straight pins, bone buttons and glass container fragments were recovered from this stratum. The fill is apparently the hard-packed, cumulative debris generated by antebellum domestic activities conducted in the cellar. A brick hearth apron caps the western portion of this stratum which was the circa 1860 surface of the cellar floor. The apron borders a cellar fireplace built into the northeastern chimney of the house.

Stratum 8 A very small, shallow patch of yellowish-red (5YR4/6) silty clay loam located only in the southeast corner of Unit 1 beneath Stratum 6 and overlying Stratum 7. The fill appears to have been intentionally deposited, possibly over a stain or spilled substance on the cellar floor.

Stratum 9 Weak red (10R4/2) silty, clay loam with deteriorated sandstone fragments. This stratum represents the original packed-clay cellar floor. It was apparently used to level the surface of the undulating bedrock upon which the house is constructed. It may also have served to seal out ground water.

The north and east walls of Unit 1 are the pargeted, quarried, Triassic sandstone foundation walls of the mansion house.


44PW348 UNIT 1 STRATIGRAPHIC PROFILES
EAST FOUNDATION WALL
UNEXCAVATED
CHARRED PLANK
SOUTH WALL
HEARTH APRON
GROUND SURFACE
LEVEL LINE
NORTH FOUNDATION WALL
CHARRED PLANK
CHARRED FURNITURE LEG
HEARTH APRON
WEST WALL
KEY:
PLOW ZONE
STRATUM 4
STRATUM 7
SANDSTONE
STRATUM 2
STRATUM 5
STRATUM 8
BRICK
STRATUM 3
STRATUM 6
STRATUM 9
SCALE:
0
2 FEET

Stratigraphic Description: 44PW348 Unit 7 (N90, E55)

Stratum 1 Reddish-brown (5YR3/4) clay loam mottled with brick rubble, sandstone footers, plaster, charcoal and mortar fragments. This stratum represents the 20th century plow zone and has been extensively disturbed by modern agricultural activity and trash-dumping.

Stratum 2 Very dark grayish-brown (10YR3/2) silty loam mottled with charcoal chunks, brick rubble and deteriorated mortar. This stratum is apparently associated with a post destruction fill episode.

Stratum 4 Very dark grayish-brown (10YR3/2) silty clay loam mottled with dark reddish-brown (5YR3/4) clay loam, black (5YR2.5/1) ash., dark yellowish-brown (10YR4/4) deteriorated mortar, brick rubble, plaster, sandstone fragments, vegetal matter, deteriorated leather, rubber boots, and three articulated ground-hog skeletons. This stratum is an extensive ground-hog burrow which intrudes upon Strata 1,2,5,7,8, and 10.

Stratum 5 Black (5YR2.5/1) ash and charcoal mottled with light gray (10YR7/1) burned plaster, mortar, finishing brick, and brick rubble. This fill is probably associated with the central passageway from the two upper stories of the manor house. It may also include remnants of the stair well. Portions of an interior brick cellar wall and sandstone support pier form the lower portion of this stratum.

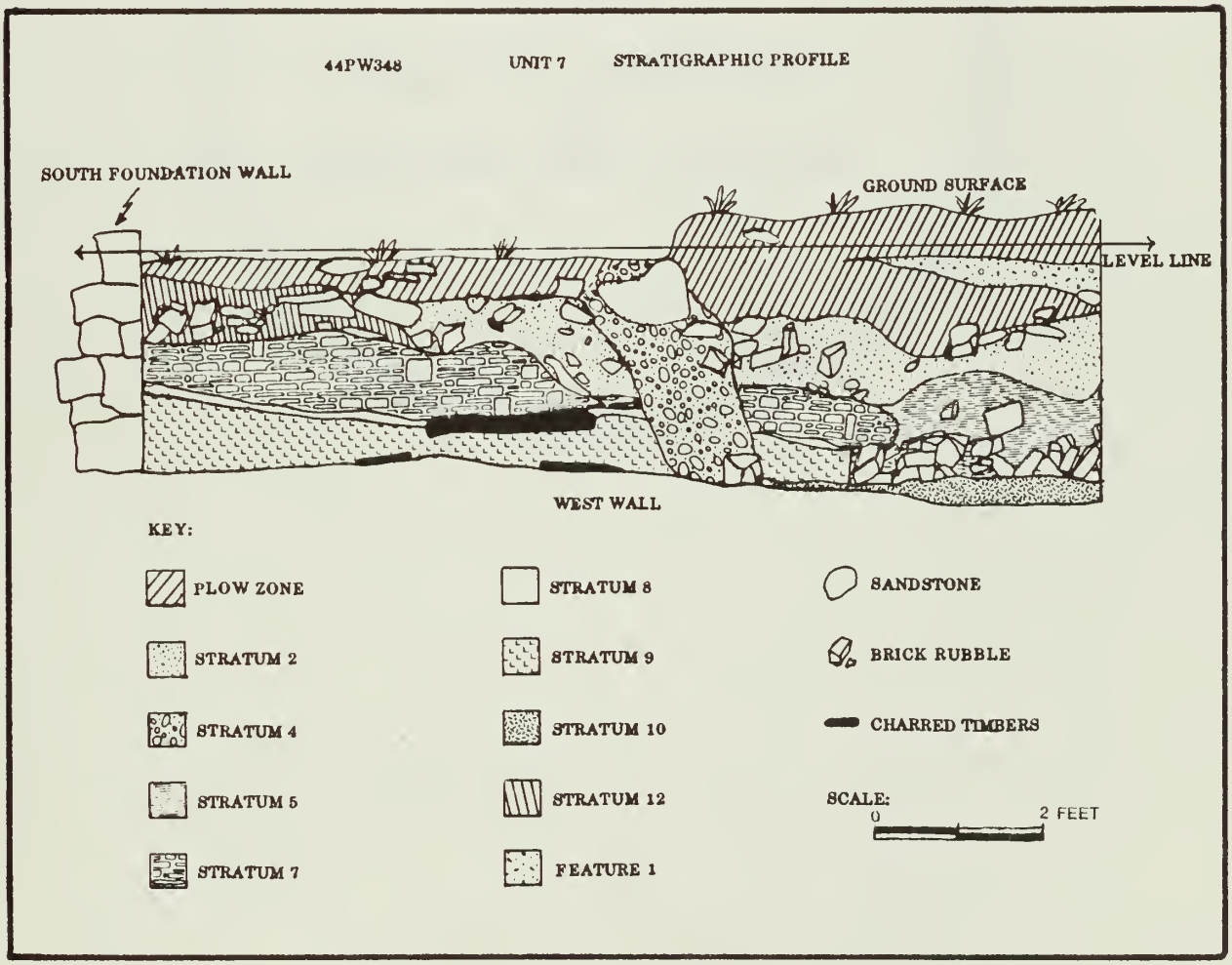
Stratum 7 Fill is predominantly brick rubble mixed with the dark yellowish-brown (10YR4/4) sand from the burned, deteriorated mortar. Occasional flecks of charcoal are present as well. This stratum apparently represents remnants of the collapsed south chimney.

Stratum 8 Black (7.5YR2/0) ash with dense concentrations of charcoal, charred timbers and planks. This very shallow stratum was evidently compressed by the weight of the overlying brick. It is thought to represent the structural supports and timbers of the second story floor and walls.

Stratum 9 Light gray (5YR7/1) ash streaked with black (7.5YR2/0) ash and charcoal containing extremely dense concentrations of burned, light gray (10YR7/1) plaster. This stratum probably represents the ruins of the first floor. The fire in this portion of the house appears to have been hotter than in the other excavation units. Artifacts recovered from this stratum are not only burned, but fused together. The stones exposed along the south foundation wall in this unit are also badly burned.

Stratum 10 Dark reddish-gray (5YR4/2) silty clay loam mottled with light gray (10YR7/1) ash, deteriorated plaster and charcoal fragments. This stratum is probably the circa 1861 through 1863 bellum occupation of the house.

Stratum 12 Dark reddish-brown (5YR3/2) silty clay loam with brick and sandstone rubble. This stratum appears to represent a portion of the south foundation wall of the house which either collapsed sometime after the fire, or was pushed into the cellar slump in a fill episode to reclaim the area for agricultural purposes after removing all suitable construction materials.



APPENDIX J

Explanation and Examples of South Mean Date Calculations

The final step in the process of ceramic analysis is to assign dates to various site components, whether soil strata or architectural additions. This was accomplished by utilizing the South formula for mean dating, which is based on the presence or absence of ceramic types, the frequency of their occurence, and the date ranges of manufacture. South (1977) devised a simple mathematical formula into which data obtained from ceramic analysis can be inserted. The result of the application of this formula is a mean occupation date for a site or strata within the site. The formula is expressed as:

$$Y = \frac{\sum_{i=1}^{n} X_i \cdot f_i}{\sum_{i=1}^{n} f_i}$$

Y represents the resulting mean ceramic date; Xi equals the median date for the manufacture of each ceramic type; Fi equals the frequency of each ceramic type; and N equals the number of ceramic types in the sample (South 1977:217). The archeologist, after quantifying the various ceramic types (frequency of the occurrence), places each type's median date of manufacture in a columnar format and multiplies the two numbers together. This results in a third column which is the product of each ceramic types median date times its frequency of occurrence. The sum of the frequency column is divided into the sum of the product column, which results in a mean ceramic date for the entire ceramic assemblage.

While the formula appears complicated, it is more readily understood upon its application. Unit 252 at Portici is typical of excavated units, the ceramics used in this example were recovered from the bellum occupation stratum.

Ceramic type	Type Median Date	Quantity	Product
undec. whiteware	1904	11	20,944
pattern dec. whiteware	1850	11	20,350
pattern dec. whiteware	1840	3	5,520
undec. pearlware	1835	2	3,670
dec. pearlware	1813	1	1,813
astbury ware	1738	1	1,738
		29	54,035

When the quantity (29) is divided into the product (54,035), the result is a mean ceramic date of 1863.27. The rounded date of 1863 corresponds well with the circa 1863 date of Portici's abandonment, and subsequent destruction, as deduced from historic documentation.

A second example of the application of South's mean dating formula is taken from Pohoke's Unit 2 (slave quarters area). While the variety of nail types is not as diverse as that of the ceramic assemblages recovered, the procedure and results are the same.

nail type	Type Median Date	Quantity	Product
completely wrought	1772 (1680-1863)	26	46,072
early machine-made	1820 (1810-1830)	11	20,020
late machine-made	1847 (1830-1863)	55	101,585
		92	167,677

When the quantity (92) is divided into the product (167,677), the result is a mean nail date of 1822.57 or 1823. This date corresponds to the construction of Portici, after which the tenant house on Pohoke would have been abandoned and the slave quarters built.

A "mean date," whether obtained from ceramics or nails, is not an absolute date. Rather, it provides the archeologist with an approximate reference point in time.

APPENDIX K

Inventory and Appraisement of the Estate of Alfred Ball

King William Co. to wit

I Winston D. Carter a justice of the peace for the County aforesaid, do hereby certify that John D. Deegans, Christopher C. Cushing, William T. B. Wheeler, Benjamin B. Tunis and Benjamin Johnson did appraise before me this day and were sworn according to law, to Inventory and appraise the estate of Alfred Ball deed. Given under my hand this 5th day of July 1865.

W. D. Carter J. P.

Inventory and appraisement of the Estate of Alfred Ball deed.
Made July 1st and 5th 1865

Negroes		
Ned	850	00
Nancy	900	00
Betty and child Eliza	850	00
Moses	600	00
Washington	650	00
Samuel	1000	00
Henry Grimes carpenter	1100	00
Armistead	650	00
Jemima and child Armistead	550	00
Hannah	800	00
Nat	900	00
Lavinia	500	00
Lydia and two children William and Alfred	850	00
Sarah	400	00
Mary	700	00
Charles	600	00
Maria	650	00
Harrison	550	00
Evans	300	00
Henry	1000	00
Nellie and child (Evans)	875	00
Silas	800	00
Cyrus	800	00
Celia	500	00
Betty	450	00
William Berry	850	00
Mary and child Ann	700	00
Sam	600	00
Peter	450	00
George	400	00
Martha	325	00
Dick	100	00
Minna and child Horace	600	00
Isabella	450	00
Elijah	400	00
Jacob small Boy	300	00
Jacob aged 49	850	00
George (Emmanuels son)	900	00
Daniel (Hannahs son)	900	00
Evan an Idiot unchargeable		
Aretta three yrs old chargeable		
Mahala and child not present		
Frederick " "		

1 Small Table		.50
7 pr Large Blankets @ 2		14 00
4 Dillo Dillo Damaged @ 1		4 00
1 Bed. Bedstead and Bedding		30 00
1 Dillo Dillo		24 00
6 yards Counterpane @ 0.17		26 00
6 Dillo Dillo @ 3		9 00
1 Dressing Dillo		3 00
3 Comforts @ 1		3 00
2 Quilts @ 5		10 00
7 Bedspreads @ 50 ct		3 50
1 Pr Worsted Curtains		.50
3 Chair Covers @ 33 1/3 ct		1 00
1 Table and Case		2 50
1 Looking Glass		.50
2 pr Linen Sheets @ 2.50		5 00
12 4 pr Cotton Dillo		12 00
1 pr Blue Linen Dillo		2 50
4 pr Linen Pillow Cases @ 60 ct		2 40
2 pr Cotton Dillo		.50
35 Large Table Cloths		6 00
15 Small Dillo @ 5 ct		.75
20 Towels @ 10 ct		2 00
1 Blue Table		.60
6 Table Cloths @ 3		18 00
6 Window Curtains @ 1		6 00
3 Crimson Dillo @ 1.50		4 50
3 Glass Tables Dillo @ .75		2 25
1 Chair Cane		.25
2 Feather Beds @ 12.50		25 00
25 yds Carpeting @ .24		6 00
1 Toilet Table and Cover		1 00
1 Looking Glass and 1 Frame dillo		.75
1 Pair Andirons Shovel and Tongs		3 00
3 Candlesticks		.75
1 Washstand and Bucket		1 50
6 Mahogany Chairs @ 1		6 00
2 Flag Bottom Do		.50
50 yds Floor Matting		7 00
1 Bedstead and Lacing		2 00
2 Beds Bedsteads and Bedding @ 25.50		55 00
2 Washstands and Basins		3 00
1 Table Bucket and Pitcher		1 50
1 pr Andirons and Tongs		2 00
1 Bureau and Cover		3 00
1 Frame Glass and 1 Toilet Dillo		1 25
Lot of Books on Mantel		2 00
1 Chair and Stool		1 00
Lot of Glass on Waiter No 1 (and Waiter)		3 00
" " Glass on Waiter No 2 (")		6 00
1 Salver		2 00
Lot of Glass on Waiter No 3 (")		8 00
1 Mahogany Table		6 50
1 pr Dillo		12 00

15 Silver Teaspoons	12	00
11 Ditto Table Ditto	16	00
1 Silver Ladle and Butter Knife	10	00
1 " Sandard	40	00
1 " Seafort	40	00
6 plated forks 6 Tea and 6 Small plated Spoons	1	00
1 Pair castors and Plane		75
1 Lot Tea ware on Waiter No 4	2	50
1 Plated Coffee Pot Tumers and Dishes	6	00
1 Set White Handled Knives and forks	6	00
1 Doz. Knives and 1 Doz. Forks	2	00
Lot of China on Shelf No 5	15	00
1 Bennet Stove	90	00
Lot Fire Irons	1	25
1 pr Andirons Shovel & Tongs	2	50
2 Candlesticks Tray and Snuffers		50
1 Plate Warmer and Bracket	1	00
1 Coal hand furnace	1	00
1 Clock	2	00
1 Candle Stand		75
10 Chairs @ 50	5	00
Lot of Desk mats		50
1 Small Carpet	2	00
Lot of Pitchers and Waiters No 6 7 & 8	3	00
2 Coffee pots 4 plates Bronze and examples		75
1 Tea board	6	00
2 Knife Cases @ 1	2	00
1 Plate Glass Mirror	5	00
14 Bagged Cows	15	00
16 Milking Hogs @ 3	48	00
12 Shoats @ 1.25	15	00
20 Pigs @ 50	10	00
1 Stove and boiler	6	00
4 Chairs Rush @ 1	4	00
1 Wheat Machine	20	00
8 Stacks Hay @ 15	120	00
1 Doz. Rush Bottom Chairs	12	00
1 Rocking chair		75
1 Large Arm chair	5	00
1 Center Table	10	00
1 Hair Sofa	15	00
1 Small Mahogany Table	5	00
1 Mantle Mirror	8	00
1 Parlor Stove	2	00
2 Lamps and 2 Flower pots	2	00
Lot of Books	15	00
1 Clothes Press	3	00
1 Washstand Ewer and Pitcher	2	50
1 Lot of Tinners Cake pan and bucket	2	00
1 Lot of Stone ware	1	00
1 Bell metal Bells	4	00
Under Andirons Shovel and Tongs	4	00
1 Bottle Pickles		37½
1 Glass Lantern		50

102

1 Secretary	15	00
1 Table and Lot of Books	2	00
1 Bed Bedstead and bedding	60	00
1 Washstand	1	50
1 Clothes Press No 2	5	00
1 Chamber Carpet	5	00
1 Iron Safe	4	00
1 Large Carpet	8	00
1 Old Ditto	2	00
1 Old Ditto	2	00
2 Hearth Rugs	5	00
1 Parlour Carpet	25	00
1 Piece oil Cloth for Floor	5	00
5 Chairs @ 30	1	50
1 Water Cooler	2	00
1 Parlour Lamp and Chimney	1	50
1 Thermometer		50
1 Franklin Iron and Andirons	3	00
1 Lot of Spins	1	00
1 Lot Kitchen Furniture	5	00
6 Bee Stands @ 1	6	00
1 Ox Steel yards	1	00
1 Washing Machine and Tub	6	00
1 Cutting Box	6	00
1 Corn Sheller	5	00
1 Grindstone	4	00
4 Forks 1 Shovel and 2 Hedges	1	25
2 Manure Hooks and 30 Guano Bags	2	00
	115	75
Amt from Page 7	1153	50
" From Page 6	297	25
" From Page 5	286	50
" From Page 4	246	00
" From Page 3	649	75
" From page 2	86	50
" From Page 1	1425	00
Total	3979	75

J. B. Grason Admr. of A. Ball Decd.

In compliance with the above order of the Court of Prince William County We have made the following Inventory and Appraisement of the personal Estate of Alfred Ball Decd. Given under our hands this 25th day of July 1864

Amount of Appraisement Three thousand nine hundred seventy nine Dollars & 75 cts

John H. Dogan
C. C. Cushing
W. L. B. Wheeler
Benjamin F. Lewis
Wm Johnson

At a Court of Quarterly Session held for Prince William County on the 1st day of August 1864 this Inventory and Appraisement of the Estate of Alfred Ball decd was presented to the Court and ordered to be recorded

Teste P. H. Lipscomb Clk.

APPENDIX L

Account of property sales from the Estate of Alfred Ball

Duke's Acct. Sales

Account of Sales of property belonging to estate of Alfred Ball dec'd made November 29th & 30th 1883.

	John L. Smith	One cow	65-
	George H. Carter	3 Old axes	45-
	John C. Hogan	3 Scalleches & hoe	30
	W. T. Whitaker	1 Auger & 7 Cutter bands	15-
	John Davis	1 Crowbar	30
	John C. Hogan	1 Kettle	1 25
	John C. Hogan	1 Bar iron	25-
	George H. Carter	3 Measure forks	30
	Matthew J. Lee	Set old iron No 1	60
	John C. Colgen	" " " No 2	60
	John C. Hogan	Log Chain No 1	1 00
	Hosea Alexander	Log Chain No 2 Steam	1 65
	W. L. R. Whitaker	Set Iron fenders & Shovels	25-
	Henry T. Matthew	One 2 horse wagon	45 00
	James Robinson	Set of gear for "	3 00
	J. L. Quigley	" " "	7 75
	Frederick Poole	1 Roach wagon	20 75

Jam^{s} J. Tebbs	Journey for waggon	4	85
Benj^{a} Thornton	Cast Iron Corn Sheller	4	25
George B. Tyler	1 Wheat fan	12	00
Wm Summers	Machine rent No 1	4	75
John Harrison Corson	" " No 2	1	62½
George H. Carter	20 Guano bags		30
John S. Smith	32 Bus horse feed @ 35	11	20
George H. Carter	1 Steer (horned Cow)	22	00
A. J. Quigley	1 " Buffalo Cow	22	25
A. J. Quigley	1 Red " Cow	23	25
A. J. Quigley	1 White horned "	23	25
Jam^{s} J. Tebbs	1 Yoke of Steers	85	25
John W. Bowen	1 Yoke of Steers	109	00
Henry Bell	7 Hides @ 9^{c}	6	65
Jam^{s} Soole	28 Sheep & Calf Skins @ 4.5	12	60
R. Alexander	5 Hogs 1st Chs @ 7.05	35	25
R. Alexander	5 Hogs 2^{d} " @ 6.60	33	00
W. J. Bellwhite	7 Hogs last Chs @ 4.05	28	35
John Hanson Corson	10 Sheals 1st Chs @ 2.25	22	50
A. J. Quigley	9 Sheals 2^{d} Chs @ 1.50	13	50
Frederick Soole	Sows Pigs No 1	9	00
Wm J. Ware	Sows Pigs No 2	8	25
Mrs S. C. Bell	10 Bs Corn @ 3.05	30	50
Wm Conrad	10 " Corn @ 2.75	27	50
R. Alexander	20 " Corn @ 2.35	47	00
Benj J. Chinn	10 " Corn @ 2.85	28	50
John W. Calen	10 " Corn @ 2.85	28	50
R. Alexander	10 " Corn @ 2.85	28	50
Henry S. Matthews	20 " Corn @ 2.80	56	00
Wm Duval	20 " Corn @ 2.80	56	00
John W. Drummagem	10 " Corn @ 2.80	28	00
John W. Calen	10 " Corn @ 2.80	28	00
Pinckney Roberts	25 " Corn @ 2.80	70	50
R. Alexander	10 " Corn @ 2.80	28	00
John W. Bowen	10 " Corn @ 2.80	28	00
James M. Dell	10 " Corn @ 2.80	28	00
Matthews & Lee	10 " Corn @ 2.80	28	00
Jam^{s} J. Tebbs	1100 Sheets feeders @ 3^{d}	12	00
Frances W. Scott	3 Whiskey barrels @ 10		30
Benj Thornton	Straw & Chaff of Crop of wheat	25	00
Joel Mann	70^{lb} Nails @ 8½	5	85
Matthews & Lee	Set of glass & Box	1	30
Joel Mann	2 Chests & Contents		25
Frederick Soole	Set of Castles & 2 boxes		3½
R. Alexander	Coffee Mill & Flax wheel		87
John W. Drummagem	1 Bee Stand	3	75
Wm Conrad	1 Bee Stand	2	00
Joel Mann	1 Bee Stand	3	00
Wm Conrad	2 Bee Stands	2	15
Wm Conrad	1 Bee Stand	1	15
Daniel G. Roberts	1 Old Grain & Set of boxes		25
George Harris	1 Set boxes & barrels		87
John Cregg	1 Spinning wheel & card		90
Henry Eastlind	1 Spinning wheel & Card		95

Henry Rees	Set of barrels	45
Frances A Lewis	1 Pr patent balance	673
A S Quigley	1 Set shuckles	1 00
Benj F Winn	1 Stack hay	11 50
Benj Thornton	1 Stack hay	11 00
Benj Thornton	1 Stack hay	23 50
Mrs Sarah C Ball	1 Stack hay	21 00
W Alexander	1 Stack hay	22 50
Benj Thornton	1 Stack hay	13 00
Benj F Winn	1 Stack hay	15 00
Benj Thornton	1 Stack hay	16 00
Benj Thornton	1 Old wheat machine	5 00
A S Quigley	1 Stack hay	7 00
Recapitulation	Amt of Page 3	166 075
	Amt of Page 2	696 125
	Amt of Page 1	440 075
Amt of Sales 29th & 30th Nov 1853		1302 975

J. A. Crayon admr
of Lloyd Ball dec'd
Certified Cashing Clk

Prince William County Court Continued and held for Prince William County on the 4th day of April 1854

This account of Sales of the estate of Lloyd Ball deceased, was presented to the Court and ordered to be recorded

Test J. W. Spriggs Clk

Ball Ad Acct Sales

An account of Sale of the personal property of L. Ball dec'd made at Federal August 31 1853

Articles Sold	Purchasers names	Price
2 Pumps	John F Smith	1 00
1 Meat Cask (iron hoops)	"	25
1 Stove and pipe and hearth	Wm A Lynn	7 75
3 Hemp hooks	"	25
1 Ox Cart	"	2 20
1 Pump handle	"	10
1 Copper kettle large size	Edwd Barclay	3 50
1 Keg Powder & fuse	" "	1 38
1 Small Brass Kettle	H A Lewis	3 50
1 Set Irons	H A Weedon	1 87
1 Carriage & Harness	H A Lewis	62 25
1 Grey Mare, Lately Morgan	"	75 75
1 Set Singletrees	"	1 05
2 Hay forks	"	62
6 German Silver Spoons Large	"	2 25
6 " " " Small	"	1 75
2 Pr Large Blankets	"	4 00
1 Waggon "	"	2 00
2 Yarn Counterpanes	"	3 34
1 do "	"	3 00
1 Pr Montgomery Gaiters	"	12 00
1 Double S. ploughs	H A Lewis	2 25
3 " "	"	2 25
1 Bugle "	"	2 25

1 Hay Rake			
1 Shear Cutter			
1 Set 4th Sm. Scythes &c			
1 Jew Sng Belt			
1 Bed, Bedstead & Bedding			
2 Feather Beds			
1 Frame, Glass & Foils &c			
1 Grange Carpet			
1 Cupboard			
1 Pr Iron Wheels			
2 " Cotton "			
1 Duncan & Cows			
½ of Sawhand			
1 Large Arm Chair Platform			
2 Old Jugs			
1 Kettle & Stove			
1 Small Bird Cage			
1 Brindle Cow			
1 Black Heifer, White Face			
1 Washing Machine			
1 Grab Sieve			
1 Old Brindle Cow, White legs & face			
1 Pr Mowing Shears,			
3 Old Cradle Wheels			
1 McCormick Plough, 5c 1 Roller, 50c			
1 Axle, 2 Irons & 1 Wheel			
1 Set old Wheels & Axles			
1 Grind Stone			
1 Bankhead Plough 4c 2			
1 Grey Mare Stock,			
1 Pr Mule Gleines			
1 Buggy & Harness			
1 McCormick Plough 1c 1			
1 Cradle & Scythe - 80c 2 Do 1c; 65c 10; 12; 70c			
2 Mowing Scythes & Paths			
5 Paths & 2 Scythes			
1 Colt, Cow, Red Cows,			
1 Ox Cart (Pr)			
1 Miner & Chanler Plough			
1 Set Blacksmiths Tools			
1 Hand Mill			
6 Common Gibbs Forks			
1 Bankhead Plough 4c 1			
1 McCormick "			
1			
1 Miner & Chanler Plough			
1 Cradle & Scythe			
1 Set Brush Harrows			
1 Pr Steelyards			
1 Hinge Harrow			
1 Small Buffalo Heifer			
1 McCormick Plough			
1 Small Grindstone			
1 Blue Harrow			
			197
D M. Lewis			4 50
"			4 50
"			2 10
"			86 00
"			50 00
"		343.58	28 00
"			1 25
"			8 00
Mrs Frances Lewis			1 00
"			2 50
"			2 00
"			8 00
"			15 00
			5 00
L Holden			05
Edward L. Carter			4 13
" "			4 15
" "			15 00
"			17 00
B. F. Chinn			2 00
"			76
			16 78
G. Wolfsohn			1 10
"			1 10
"			55
"			3 87
			3 57
W. Sr. B. Wheeler			1 00
"			1 15
"			76
D. C. Elgin			50
F. M. Whaley			18
"			1 55
"			2 15
"			1 45
"			80
F. M. Lewis			31
C. C. Masselter		2519	1 60
"			3 87
"			11
"			60
"			1 40
Geo. B. Tyler			1 25
"			68
Thomas Hutchison			1 10
George Simmons			1 90
"			25
"			12
"			60
Albert Buckley			6
			10
Hamilton Gaskins			1
			65
Wm H. Thornton			3 10

321 Sheep 2? Shear 2.10	Wm H. Rhoades	671	10
1 Bay Mare Colt,		13	50
1 Set Angle Ploughs	Geo G. Tyler	3	50
1 Horse George Bay	Thomas H. Carter	111	
1 Coulter & Y Weight	Matthew A Lee	1	10
1 Scythe & Cradle Spr 1	V. C. Clerk		80
350 Sheep 1st Choice 3.60	Erasmus Taylor	1260	
5 Bucks Merino	"	27	50
1 Sorrel Mare Colt	John H. Grason	90	50
1 Grey Mare Colt,	C. H. Jamieson	36	
2 Sets Plough Gears	"		80
5 Collars 1 Spr Hames, 2 Spr Traces, 2 Backbands	C. C. Mercer's Estate	2	25
1 Bay Horse John,	Robert Beverly	50	
1 Brown " Billy,	B. Berghalter	75	
		2651	77
1 Ox Waggon & frame	John Hill Carter Jr	28	
1 White & Blue Steer	"	8	
1 Small Spied Steer	"	6	38
1 " " Mouse Colored,	"	8	25
1 " Black Steer	"	8	30
11 Calves 4.10	"	45	10
1 White Bull	C. B. Stewart	25	50
1 Red Steer White face	"	20	
1 Small White Steer	W. B. James	13	75
1 Blk Cow Calf	J. Markley	17	50
1 Small " Spied "	"	14	25
1 Dark Heifer White face,	"	17	25
1 Black Cow	Dan'l Ayres	22	
1 White "	"	38	
1 " " Red spots on neck	Lt A. Gray	26	75
1 " " Red ears	"	25	25
1 Red Heifer	"	21	
1 Cow Shelter	John W. Roglas	6	25
1 Grain Thresher	"	5	
1 Red Cow Broken horn,	P. A. Brown	21	
1 " " Crooked "	"	16	25
1 Roan Heifer	"	22	
1 White Cow	"	27	
1 Yoke of Oxen	Robert A. Ish	110	50
1 Buffalo Heifer	J. Quins	16	
1 Brown Bull	G. Saunders	35	
2 Damaged Blankets	Mrs Elizabeth Carter	2	
1 Yarn Counterpane	" "	4	17
1 " Comfort	" "	1	
1 Frame Looking Glass	" "		25
1 Bedstead & Cording	" "	2	
		608	67
Set of Glass on Waiter No 1	Mrs Elizabeth L. Carter	2	00
1 Tidier	" "	2	
½ of 1 Tankard	" "	5	
1 Red Bedstead & Bedding	" "	22	
2 Cotton Counterpanes	Mrs Ann J. Carr	6	
1 Comfort	"	1	
1 Spr Linen Sheets	"	2	50

25 yds Carpeting	Mrs W. S. Lewis	6	
Set of Glass on Castors No 2	"	6	
½ of Sideboard	"	5	
1 Set of Dec Ware on Castors No 4	"	2	50
11 Common Chairs 196	Mrs Sally C. Bass	21	56
1 Sorrel Horse Saddle & Bridle	"	40	
1 Ox Cart	"	11	
1 Red Cow & Crooked horns	"	12	25
1 Pair of Carriage Horses	"	180	
1 Bed Bedstead & Bedding	"	30	
1 Small Walnut Table	"		50
6 pr Georgs Blankets @ 2	"	12	
2 Worn Counterpanes 4.17	"	8	34
1 Family "	"	3	
5 Bed Spreads 50c	"	2	50
10 pr Cotton Sheets @ 1	"	10	
1 " Linen "	"	2	50
4 " " Pillow Cases - 60c	"	2	40
24 Cotton "	"		50
35 Large Napkins	"	3	
15 Small " 5c	"		75
20 Towels 10c	"	2	
6 Table Cloths @ 3	"	18	
3 Damask Curtains 1.50	"	4	50
		447	80
3 Draped Curtains @ 75c	Mrs. F. C. Hall	2	25
1 Toilet Table & Glass	"	1	
1 Reaching Glass	"		50
1 Pair Andirons Shovel & Tongs	"	3	
3 Candle Sticks	"		37
1 Wash Stand & Bucket	"	1	50
6 Mahogany Chairs @1	"	6	
2 Bench Bellows " 25	"		50
30 yds Floor Matting	"	7	
2 Beds Beadsteads & Bedding	"	66	
2 Wash Stands & 2 Basins	"	3	
1 Table Bucket & Pitcher	"	1	50
1 pr Andirons & Tongs	"	2	
1 Chair & Stool	"	1	
1 Cut Glass Bowl on Castors No 1	"	3	
Set of Glass on Castors No 3	"	8	
1 Mahogany Table	"	6	
15 Silver Tea Spoons	"	12	
11 " Table "	"	16	
1 Ladle & Knife	"	10	
½ of Sideboard	"	8	
1 Silver Cheese Set	"	40	
1 Set Castors & Stand	"		75
1 Plated Coffee Set, Tumblers & Dishes	"	6	
1 Set Cruet & Spoons & Salts	"	6	
1 Egg Cup	"	2	
Set of China on Castors No 3	"	12	
1 Dinner Set	"	20	
Andirons Shovel & Tongs		2	50

3 Candle Sticks Snuffers & Tray	Mr. J. C. Ball		50
1 Slate Steamer & Basket	"		50
		237	37
1 Coal Furnace	Mrs J. C. Ball	1	
1 Clock	"	2	
10 Chairs 5/ea	"	8	
1 Set Mats	"		50
1 Small Carpet	"	2	
1 Set Fenders & Chains & Tongs	"	3	
2 Coffee pots & Plates, Bench & Cushion	"		75
1 Slate Board	"	5	
2 Tonic Cases	"	2	
1 Slate Glass & Mirror	"	5	
1 Reg. Brush bottom Chairs	"	12	
1 Etching "	"		75
1 Mahogany Table	"	10	
1 Sofa	"	15	
1 Small Mahogany table	"	5	
1 Mantel Mirror Gilt frame	"	8	
1 Parlour Stove	"	2	
2 Stamps & 2 Stove pots	"	2	
Set of Books in Pictures	"	15	
1 Clothes Press in Chamber	"	5	
1 Wash Stand, Ewer, & Pitcher	"	2	50
1 Set fenders, Coal pan & Bucket	"	2	
1 Steel Cane	"	1	
Fender, Andirons, Pistol & Tongs	"	4	
1 Glass Stamp	"		50
1 Secretary	"	15	
1 Small Walnut Table & Stools	"	3	
1 Bed, Bedstead & Bedding	"	30	
1 Wash Stand	"	1	50
1 Clothes Press No 2	"	5	
1 Chamber Carpet	"	5	
		184	50
1 Iron Safe	Mr. J. C. Ball	4	
1 Oil Carpet	"	2	
1 " "	"	2	
2 Hearth Rugs	"	5	
1 Large Persian Carpet	"	25	
1 Piece Oil Cloth on passage	"	5	
5 Chairs 30/	"	1	50
1 Ice Gallon Water Cooler	"	2	
1 Passage Lamp & Chain	"	1	50
1 Thermometer	"		50
1 Set Kitchen Furniture	"	5	
		83	50
	Amt from 1st page	3413	38
	" 2d "	251	10
	" 3d "	2541	77
	" 4th "	608	67
	" 5th "	441	80
	" 6th "	237	87
	" 7th "	187	80
	Amount of page 3d Aug 6 1853	4866	88

I. C. Grayson Executor of Albert Ball dec.

At a Court of Monthly Sessions Continued & held for Prince William County on the 4th day of April 1831

The account of sales of the estate of Alfred Ball dec'd was presented to the Court and ordered to be recorded

Teste. P. M. Lipscomb CPC

The following is a List of Property sold by Isaac Bridwell admr of William Bridwell dec'd on the 28th day of February

Names	Property	$	Cts
R. W. Thornton	1 pine Desk		50
Do Do	1 Table		25
James Carter	1 Sugar table		12½
Wm Strother	1 Bed Bedstid & furniture	4	00
Silas Bridwell	1 Saddle	2	10
Robert Graves	1 Shot Gun		60
Wm Strother	2 Chairs		12
I. Bridwell	1 Shovel		25
D. Paine	1 Shovel		20
James Custer	Bug Sled &c		45
Harrison Holmes	1 Barrel & half bushel		25
Do Do	1 Lot of Hides		10½
A Grayson	1 pot Oven & Trakette		50
Leonard Fichtling	Tin pan Contents		25
I Bridwell	½ Shocks of Hay	1	10
A. Carney	1½ Shocks of Wheat	1	50
Do Do	1½ Shocks of Oats	1	50
I Bridwell	Lot of Straw & Chaff		60
Jno Bridwell	Sack of Blown Salt		90
Jno A. O'Rear	1 Coarse Sieve		50
Thomas Keys	3 Whiskey Barrels		60
Charles Bridwell	1 Lot of Hides		20
Marshal Holmes	Barrel & Spoons		75
Elijah Jewell	119 lbs mess Pork 8 cts per	3	92
Enoch Grayson	Box & Grindstone		20
I Arrington	2 Sheep & Shears		10
Wm Strother	Barrel & Meal		85
E. Grayson	Gun		95
John A O'Rear	11 lbs of Wool 31 cts pr		3 11
Benjamine Murphy	1 Steelyards		25
E. Grayson	Lot of Old Iron	2	10
Do Do	Lot of Chain		80
James Carter	Lot of Plowgles		65
James McCoy	1 Do Do		90
A. Grayson	1 old Saddle		12½
Wm Taylard	1 Lot of Books		12½
E. Grayson	1 Writing desk		20
A. Carney	1 Wheat Fan	5	00
Benj Mansfield	Wagon & Cart Body	31	75
E Grayson	old Cart & body	4	18
Do Do	2 old Wheels & axeetree	3	00
Thomas Harnden	1 No 8 Mr Pot	1	90

APPENDIX M

Distribution of Slaves from the Estate of Alfred Ball

Deed Pursuant to an order of the Worshipful Board of Prince William County, bearing date the 5th day
Vase Lindsey of December 1833 and here to annexed. We the undersigned Commissioners proceeded to divide the negroe
Slaves of Alfred Bell deceased, and allot one half of said Slaves to Sarah C. Bell widow of said Al-
fred Bell to be held by her during her natural life, and the residue thereof divide equally between
Fanny Jones wife of John Jones, Elizabeth J Carlin, Louisa Ann wife of William J. Ross, Adaline
Bell wife of H. Bell to be held by them as absolute property - the whole amt of Slaves, twenty
nine thousand two hundred dollars - $29 200

We have allotted to Sarah C Bell the following Slaves to wit,

William Berry valued at Eight hundred fifty dollars	850
Mary and child William	700
Sam	600
Robert	450
George	400
Martha	375
Chris	600
Fed	450
Nancy	750
Sally and daughter Eliza	850
Moses	800
Washington	650
Samuel	1000
Jemiah	1000
Thornton	1000
Frederick	850
Milly and child Susan	875
Betty	450
Rima and two Children Mildred & Alfred	700

182

Judith		450.
Maria		450.
Severna		400.
Who receive from No 4 hereafter named) one hundred		100 dollars
		$1,600

And we then divided the residue of said Slaves in four equal parts, and allotted to

Adaline Best wife of H Best

No 1 Stanison valued at Five hundred dollars		500.
Susan	"	350
Henry	"	1 000
Chloe	"	800.
Daniel	"	1 000
		$3 650

To Fanny Lewis wife of John Lewis.

No 2 Jemiston valued at Five hundred fifty dollars		550.
Jemima	"	550.
Hannah	"	900.
Ned	"	900.
Mary	"	700
Who receive from No 4 fifty dollars		50
		$3 650

To Elizabeth T Carter

No 3 Henry Grimes and both valued Eleven hundred dollars		1 100.
Lydia and 2 children William & Alfred		650.
Sarah		400.
Charles		500.
Ezekiel		400
		$3 050

To Louisa Weir wife of William J. Weir

No 4 Jacob valued at eight hundred and fifty dollars			850.
Elijah			450.
Jacob a boy			300.
Felicia			500.
Mahala and child			850.
George Taylor			850
Who pays to widow One hundred dollars		100.	3 800
And to No 2 fifty dollars		50	150
			$3 650

Which makes the said division equal between the several distributees

And we found two slaves chargeable, to wit, Caroline a woman and Edward a boy and we appraised the administrator to set them up to the best bidder, which sold and William J Weir one of the distributees of said estate became the purchaser at the sum of Six hundred and fifty dollars being the best bidder

And we were employed one day in making the aforesaid division and do charge three dollars per day All of which is most respectfully submitted to the Court Given under our hand this 29th day of Dec 1853

A J Stevenson
An Johnston } Commissioners
B F Lewis

In Prince William County Court December 8th 1853

An indenture of Sarah E Peake, it is ordered that Allen Stevenson, Wm H Mercer, Benjamin Johnston, Benj F Lewis and Wm P O Whaley (any three of whom concur) be and they are hereby appointed special Commissioners to divide the negro slaves of Alfred Peake dec'd, and allot one half of the said Slaves to Sarah E Peake widow of said Alfred Peake to be held by her during her natural life and the residue thereof divided equally between Fanny Lewis wife of the said Lewis, Elizabeth T.

Creeks, Lawson Allen wife of Wm S Allen, Adeline Hart wife of W Hart to be sworn by them in order to prosecute their proceedings to this Court with a view to a private order.

Hartsfield Feste P.D. Shipcomb Clk

Prince Wm County, to wit

Benj. Johnson, Allen Stevenson and D.F. Sears this day appeared before me and were duly qualified as Commissioners to divide the Slaves of J. Pulliam dec'd according to the above order. Given under my hand this 2nd Dec. 1853

J.R. Grayson J.P.

At a Court held for Prince William County on the 6th day of February 1854.

This division of the Slaves of the estate of Nipes Sally dec'd was presented to the Court and ordered to be recorded.

Teste. P.D. Shipcomb Clk.

Arrington Rd. We the undersigned being called on by the parties hereto to lay off to the widow of Richard Arrington dec'd her dower of the real estate of the said Arrington and the said parties bind themselves to abide by the same, to-wit: the boundaries as follows. Beginning at a cedar sapling to be in a near the line of Miss Sarah Kincheloe and the entire head of the said Arrington and running to a red oak at the rock spring thence to a chesnut tree on the side of the mountain sapling to be on the dividing line between David H and George W Arrington who have purchased the entire tract with the understanding that the widow's interest is to be laid off out of the said George W Arrington's half. Given under our hands and seals this 12th day of Oct. 1853.

T.J. Keller (Seal)
John Hooe (Seal)
R.C. Hooe (Seal)

At a Court held for Prince William County on the 6th day of February 1854.

This assignment of dower to the widow of Richard Arrington dec'd was presented to the Court and ordered to be recorded.

Teste P.D. Shipcomb Clk.

Hooe's Est. An Inventary of the personal estate of John Hooe deceased, appraised according to law, this 11th day of November 1853

Articles	$	cts	Articles	$	cts
Bed, bedstead furniture, No 1	17	00	1 Coffee mill		12
1 Safe	10	00	1 set of linsey sheets		50
1 large table, No 1	2	00	1 Shell soap		25
1 do do " 2	3	00	1 set of table spoons		45
1 Square do " 1	1	25	1 Set of tea ware		37
1 do do " 2	1	25	1 Set of pewter ware		75
1 mantel Case and bottles	3	00	1 Saddle		25
1 brass Clock	3	00	1 Side do		25
8 Chairs	3	00	1 Spinning wheel	1	00
1 Candle Stand	1	00	1 Shoe Horn		25
1 Safe	4	00	1 reeling Cleek and Steel		75
3 Shot guns	10	00	1 clasping table		50
3 powder horns Pouches	1	50	1 long Crochet		50
1 Bed bedstead furniture No 2	17	00	1 fireplace		50
1 do do do No 3	10	00	1 do do with feet		50
1 do do do No 4	10	00	1 barrel and Cask	1	25
1 lot of books	1	00	1 Small looking Glass		12
1 lot of earthenware	2	00	1 Set of kegs, Firkins and Casks		50
1 lot of woodware	1	00	Apple mill pattens		12
1 lot of hollowware	3	00	1 large pine Chest	1	50

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The National Park Service has determined, pursuant to **Section 304 of the National Historic Preservation Act (NHPA),** as amended, and **Section 9 (a) of the Archeological Resources Protection Act (ARPA) of 1979**, that information contained in this report concerning the location and nature of archeological sites is to be withheld from the public. In conformance with provisions of NHPA, copies of this report are being distributed to State Historic Preservation offices and other state and certified local government preservation and/or archeological programs, as appropriate. It is expected that these offices will take the necessary precautions to ensure that information about an archeological resources' location and character is restricted from general distribution. For further information, please refer to **National Register Bulletin Number 29, "Guidelines for Restricting Information about Historic or Prehistoric Resources."**

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